

Exhibit 1

STATE OF NORTH CAROLINA
COUNTY OF WAKE

IN THE GENERAL COURT OF JUSTICE
SUPERIOR COURT DIVISION
18 CVS 014001

COMMON CAUSE, et al.,

Plaintiffs,

v.

DAVID LEWIS, IN HIS OFFICIAL CAPACITY AS SENIOR
CHAIRMAN OF THE HOUSE SELECT COMMITTEE ON
REDISTRICTING, et al.,

Defendants.

**PLAINTIFFS' BRIEF
REGARDING THE VOTING
RIGHTS ACT**

Pursuant to Paragraph 171 of this Court’s Judgment, Plaintiffs submit this brief “on whether the *Gingles* factors are met in particular counties and county groupings and/or the minimum BVAP needed in particular counties and county groupings for African-Americans to be able to elect candidates of their choice to the General Assembly.”

In light of the possibility of further litigation over these issues, Plaintiffs respectfully request that the Referee and/or this Court set forth written findings as to why the Remedial Plans ultimately adopted by the Court comply with the VRA with respect to some or all revised county groupings, and in particular with respect to the following groupings: Columbus-Pender-Robeson, Cumberland, Forsyth-Yadkin, Pitt-Lenoir, Guilford, and Mecklenburg in the House, and Davie-Forsyth, Franklin-Wake, and Mecklenburg in the Senate.¹

I. Legal Standards

For Section 2 of the VRA to require that a legislative district have particular racial demographics, “three threshold conditions” must be met. *Cooper v. Harris*, 137 S. Ct. 1455, 1472 (2017). “First, a ‘minority group’ must be ‘sufficiently large and geographically compact to constitute a majority’ in some reasonably configured legislative district.” *Id.* (quoting *Thornburg v. Gingles*, 478 U.S. 30, 50 (1986)). “Second, the minority group must be ‘politically cohesive.’” *Id.* (quoting *Gingles*, 478 U.S. at 51). “And third, a district’s white majority must vote sufficiently as a bloc to usually defeat the minority’s preferred candidate.” *Id.* (internal

¹ The analysis presented in this brief and in the accompany expert reports is limited to the specific districts and counties discussed, and in the specific context of this remedial process. As Dr. Handley notes in her report, “[p]articularly given the differences in voting patterns that exist across North Carolina, [the] analysis cannot be extrapolated to other counties and districts not analyzed . . . , including districts that currently have African American representatives.” Handley Report at 1.

quotation marks omitted). Each of these conditions is a “prerequisite[]” to Section 2’s application to any given district. *Id.* Where racial considerations predominate in the drawing of a district and the VRA is invoked as a justification for doing so, there must be a “strong basis in evidence” for believing that the three *Gingles* factors were present. *Covington v. North Carolina*, 316 F.R.D. 117, 167 (M.D.N.C. 2016), *aff’d*, 137 S. Ct. 2211 (2017) (internal quotation marks omitted).

The first and third *Gingles* factors are of particular significance for present purposes. As relevant here, the first factor requires that the minority group “could” comprise a numerical majority of the voting-age population in a “reasonably compact district[]” in the relevant county grouping. *Bartlett v. Strickland*, 556 U.S. 1, 7-8 (2009) (plurality op.); *Abrams v. Johnson*, 521 U.S. 74, 91 (1997).² It is not the case that “whenever a legislature *can* draw a majority-minority district, it *must* do so” under the VRA, as a “majority-minority district would not be required” in “areas with substantial crossover voting.” *Cooper*, 137 S. Ct. at 1472 (internal quotation marks and citation omitted). But for purposes of the first *Gingles* factor, it must be numerically possible that the minority group could theoretically constitute a majority of a reasonably compact district in the relevant geographic area. *See id.*

To assess whether the first *Gingles* factor is met in specific county groupings, Plaintiffs’ expert Dr. Chen investigated whether it is possible to a district (or in some cases, two or three districts) in the relevant county grouping that is majority-minority while adhering to equal population requirements. Dr. Chen did not apply the county traversal restriction in conducting this analysis. Instead, he tested whether it would be possible to create a majority-minority district within the grouping while adhering to equal population requirements, but without regard

² Because no party challenged the existing county groupings in this case, Plaintiffs have conducted their VRA analysis within the confines of the existing county groupings.

to county traversals or splitting municipalities or VTDs. Chen Report at 2. Dr. Chen also confirmed that, with one exception in the Franklin-Nash grouping in the House, his findings are the same regardless of whether he uses Citizen Voting Age Population (CVAP) data from the most recent American Community Survey or total Voting Age Population (VAP) statistics from the 2010 Decennial Census. *Id.* at 3; *see Pope v. Cty. of Albany*, 687 F.3d 565, 574 n.6 (2d Cir. 2012).

With respect to the third *Gingles* factor, the test is not whether there is some level of racially polarized voting, but rather whether there is “‘legally significant racially polarized voting,’ which occurs when the ‘majority group votes sufficiently as a bloc to enable it ... usually to defeat the minority’s preferred candidate.’” *Covington*, 316 F.R.D. at 170 (quoting *Gingles*, 478 U.S. at 51, 55-56); *see also Gingles*, 478 U.S. at 56 (“[I]n general, a white bloc vote that normally will defeat the combined strength of minority support plus white “crossover” votes rises to the level of legally significant white bloc voting.”). Because the existence and degree of racially polarized voting will “vary” from county-to-county, this factor requires a localized, “district-specific assessment” of whether whites vote sufficiently as a bloc “usually to defeat the minority’s preferred candidate.” *Covington*, 316 F.R.D. at 170-74 (internal quotation marks omitted). The need for such localized analysis is particularly acute in North Carolina: as demonstrated below and in the accompanying expert report of Dr. Lisa Handley, the existence and extent of white bloc voting varies widely across different county groupings.

There is no bright-line rule for the level of white bloc voting that is necessary for the third *Gingles* fact to be met, but prior cases provide guidance. In particular, two recent North Carolina cases—*Cooper v. Harris*, 137 S. Ct. 1455 (2017), and *Covington v. North Carolina*,

316 F.R.D. 117 (M.D.N.C. 2016), *aff'd*, 137 S. Ct. 2211 (2017)—offer guidance on

circumstances where the third *Gingles* factor is not met:

- In *Cooper*, the U.S. Supreme Court held that there was not legally significant racially polarized voting in North Carolina’s former Congressional District 1. The Court explained that, in the 20 years prior to the relevant plan’s adoption, “the district’s BVAP usually hovered between 46% and 48%,” and yet “[i]n the closest election during that period, African–Americans’ candidate of choice received 59% of the total vote; in other years, the share of the vote garnered by those candidates rose to as much as 70%.” 137 S. Ct. at 1470.
- In *Covington*, the district court held that the defendants had not presented “conclusive evidence of the third *Gingles* factor” given that, in most of the elections that the defendants’ expert analyzed, “a majority of non-African-American voters preferred the African-American voters’ candidate of choice.” 316 F.R.D. at 170. The *Covington* case involved state legislative districts in many of the same counties at issue in the remedial process of the instant case, including districts in Cumberland, Forsyth, Guilford, Wake, and Mecklenburg Counties.

In contrast, the following are examples of cases where courts have found that the third *Gingles* factor is met:

- In *Old Person v. Cooney*, 230 F.3d 1113, 1127 (9th Cir. 2000), the Ninth Circuit held that the third *Gingles* factor was satisfied where white candidates defeated Indian candidates “in 86% of the contests in the four districts challenged on appeal.”
- In *United States v. Blaine County, Montana*, 363 F.3d 897, 911 (9th Cir. 2004), the Ninth Circuit affirmed the trial court’s finding of legally significant racially polarized voting where, “[i]n five out of seven county-wide elections between an American Indian candidate and white candidate, the American Indian candidate lost despite receiving strong American Indian support.”
- In *Rodriguez v. Pataki*, 308 F. Supp. 2d 346, 425-26 (S.D.N.Y.), *aff’d*, 543 U.S. 997 (2004), the district court found that the third *Gingles* factor was met where “the Hispanic-preferred candidate received between (an estimated) 27.1% and 39.7% of the white vote in each [endogenous] election; and each Hispanic-preferred candidate lost to the white-preferred candidate.”
- In *Flores v. Town of Islip*, 382 F. Supp. 3d 197, 231-32 (E.D.N.Y. 2019), the district court held that there was legally significant polarized voting where white crossover voting ranged from 23.8% to 39% across relevant elections.

As relevant to the third *Gingles* factor, Plaintiffs' expert Dr. Handley analyzed the extent of racially polarized voting in specific county groupings using Ecological Inference (EI) modeling. Specifically, Dr. Handley ran EI analysis on state legislative and statewide elections that had an African American candidate and occurred within one or more of the counties in the relevant grouping.

Dr. Chen's report is attached as Exhibit A to this brief and Dr. Handley's report is attached as Exhibit B.

II. House County Groupings

a. Alamance

In the Alamance county grouping, the first *Gingles* factor is not met. Dr. Chen finds that it is impossible to create even a non-contiguous district in this grouping in which African Americans could constitute a majority. Chen Report at 12. Dr. Chen finds that the maximum African American CVAP possible for a non-contiguous district in this county while adhering to equal population requirements is 35.83%. *Id.*

While the first *Gingles* factor is not met, for completeness, it does appear that there is racial bloc voting in this grouping. For Alamance County, Dr. Handley finds that over 96% of African Americans have supported the same candidate in all general elections studied, and white crossover voting has been between 31.2% and 38.2% in these general elections. Handley Report at 14 (Table 3).

The below table summarizes the results of each state legislative and statewide election in this grouping since 2012 that had an African-American Democratic candidate.

Alamance					
Year	Election	BVAP of District or Counties (for Statewide Elections)	African-American Candidate	Result for African-American Candidate in District or Counties	Share of Two-Party Vote for African-American Candidate
General Elections					
2018	House District 64	18.5%	Lynch	Lost	42.2%
2016	Lt. Governor	18.8%	Coleman	Lost	41.8%
2016	Treasurer	18.8%	Blue III	Lost	43.2%
2012	House District 64	18.5%	McAdoo	Lost	41.0%
2012	President	18.8%	Obama	Lost	43.1%
2012	Lt. Governor	18.8%	Coleman	Lost	43.3%
Primary Elections					
2018	House District 64	18.5%	Lynch	Lost	46.8%
2016	Lt. Governor	18.8%	Coleman	Won	52.3% * ³
2016	Treasurer	18.8%	Blue III	Won	57.4%
2016	Attorney General	18.8%	Williams	Won	51.1%
2016	Commissioner of Labor	18.8%	Ferguson	Won	50.3%
2012	Commissioner of Labor	18.8%	Foster	Lost	33.5% *

Dr. Handley finds that the minimum BVAP necessary for the African American-preferred candidate to have won the general elections she analyzed in these counties ranges from 31.7% to 37.6%. Handley Report at 14 (Table 3). Across the general elections she studied, the average minimum BVAP necessary for African Americans to elect candidates of their choice in this grouping is 34.4%. *Id.*

b. Anson-Union

The first *Gingles* factor also is not met in the Anson-Union grouping. Dr. Chen finds that it is impossible to create even a non-contiguous district in this grouping in which African Americans could constitute a majority. Chen Report at 13. He finds that the maximum African

³ Asterisks in the charts in this section indicate that the relevant Democratic primary had more than two candidates.

American CVAP that African Americans could comprise in a non-contiguous district in this grouping while adhering to equal population requirements is 37.63%. *Id.*

While the first *Gingles* factor is not met, for completeness, it does appear that there is racial bloc voting in this grouping. Dr. Handley finds that over 98% of African Americans have supported the same candidates in all general elections studied, and white crossover voting has been between just 23.1% and 32.0% in these general elections. Handley Report at 14 (Table 4).

The below table summarizes the results of each state legislative and statewide election in this grouping since 2012 that had an African-American Democratic candidate.

Anson-Union					
Year	Election	BVAP of District or Counties (for Statewide Elections)	African-American Candidate	Result for African-American Candidate in District or Counties	Share of Two-Party Vote for African-American Candidate
General Elections					
2016	Lt. Governor	16.5%	Coleman	Lost	33.1%
2016	Treasurer	16.5%	Blue III	Lost	34.6%
2012	President	16.5%	Obama	Lost	37.7%
2012	Lt. Governor	16.5%	Coleman	Lost	37.8%
Primary Elections					
2016	Lt. Governor	16.5%	Coleman	Won	40.8%*
2016	Treasurer	16.5%	Blue III	Won	56.5%
2016	Attorney General	16.5%	Williams	Won	58.3%
2016	Commissioner of Labor	16.5%	Ferguson	Won	55.3%
2012	Commissioner of Labor	16.5%	Richardson	Lost	37.2%*

Dr. Handley finds that the minimum BVAP necessary for the African American-preferred candidate to have won the general elections she analyzed in these counties ranges from 38.1% to 45.7%. Handley Report at 14 (Table 4). Across the general elections she studied, the average

minimum BVAP necessary for African Americans to elect candidates of their choice in this grouping is 42.2%. *See id.*

c. Cabarrus-Davie-Montgomery-Richmond-Rowan-Stanly Grouping

The first *Gingles* factor also is not met in this grouping. Dr. Chen finds that it is impossible to create even a non-contiguous district in this grouping in which African Americans could constitute a majority. Chen Report at 16. He finds that the maximum African American CVAP that African Americans could comprise in a non-contiguous district in this grouping while adhering to equal population requirements is 43.85%. *Id.*

While the first *Gingles* factor is not met, for completeness, it does appear that there is racial bloc voting in this grouping. Dr. Handley finds that over 97% of African Americans have supported the same candidate in all general elections studied, and white crossover voting has been between 28.1% and 38.9% in these general elections. Handley Report at 16 (Table 5).

The below table summarizes the results of each state legislative and statewide election in this grouping since 2012 that had an African-American Democratic candidate.

Cabarrus-Davie-Montgomery-Richmond-Rowan-Stanly					
Year	Election	BVAP of District or Counties (for Statewide Elections)	African-American Candidate	Result for African-American Candidate in District or Counties	Share of Two-Party Vote for African-American Candidate
General Elections					
2018	House District 82	14.1%	Steele	Lost	47.3%
2016	Lt. Governor	15.5%	Coleman	Lost	33.8%
2016	Treasurer	15.5%	Blue III	Lost	36.1%
2012	House District 83	15.2%	Fleming	Lost	37%
2012	President	15.5%	Obama	Lost	37.8%
2012	Lt. Governor	15.5%	Coleman	Lost	39.1%
Primary Elections					
2016	Lt. Governor	15.5%	Coleman	Won	45.2% *
2016	Treasurer	15.5%	Blue III	Won	53.6%

2016	Attorney General	15.5%	Williams	Won	55.5%
2016	Commissioner of Labor	15.5%	Ferguson	Won	53.6%
2012	Commissioner of Labor	15.5%	Foster	Lost	24%*

Dr. Handley finds that the minimum BVAP necessary for the African American-preferred candidate to have won the general elections she analyzed in these counties ranges from 29.1% to 47.6%. Handley Report at 16 (Table 5). Across the general elections she studied, the average minimum BVAP necessary for African Americans to elect candidates of their choice in this grouping is 36.6%. *See id.*

d. Cleveland-Gaston Grouping

The first *Gingles* factor is not met in this grouping. Dr. Chen finds that it is impossible to create even a non-contiguous district in this grouping in which African Americans could constitute a majority. Chen Report at 17. He finds that the maximum African American CVAP that African Americans could comprise in a non-contiguous district in this grouping while adhering to equal population requirements is 43.63%. *Id.*

While the first *Gingles* factor is not met, for completeness, there is racial bloc voting in this grouping. Dr. Handley finds that over 95% of African Americans have supported the same candidate in all general elections studied, and white crossover voting has been between just 23.1% and 30.0% in these general elections. Handley Report at 17 (Table 6).

The below table summarizes the results of each state legislative and statewide election in this grouping since 2012 that had an African-American Democratic candidate.

Cleveland-Gaston					
Year	Election	BVAP of District or Counties (for Statewide Elections)	African-American Candidate	Result for African-American Candidate in District or Counties	Share of Two-Party Vote for African-American Candidate
General Elections					
2018	House District 110	15.3%	McCleary	Lost	32.2%
2018	Senate District 43	14.8%	Price	Lost	34.8%
2016	Lt. Governor	16.2%	Coleman	Lost	33.0%
2016	Treasurer	16.2%	Blue III	Lost	36.0%
2012	House District 110	15.3%	McKoy	Lost	34.1%
2012	President	16.2%	Obama	Lost	37.1%
2012	Lt. Governor	16.2%	Coleman	Lost	39.1%
Primary Elections					
2016	Lt. Governor	16.2%	Coleman	Won	42.7% *
2016	Treasurer	16.2%	Blue III	Won	52.6%
2016	Attorney General	16.2%	Williams	Won	57.5%
2016	Commissioner of Labor	16.2%	Ferguson	Won	53.8%
2012	Commissioner of Labor	16.2%	Foster	Lost	25.8% *

Dr. Handley finds that the minimum BVAP necessary for the African American-preferred candidate to have won the general elections she analyzed in these counties ranges from 34.6% to 48.3%. Handley Report at 17 (Table 6). Across the general elections she studied, the average minimum BVAP necessary for African Americans to elect candidates of their choice in this grouping is 41.6%. *See id.*

e. Columbus-Pender-Robeson Grouping

1. Native Americans

Robeson County contains a large Native American population. It is possible to create a majority Native American district in Robeson County, as the current version of House District 47

has a Native American VAP close to 50% and the prior 2011 version of the district did have a Native American VAP above 50%.

With respect to the second and third *Gingles* factors, Dr. Handley analyzed elections solely within Robeson County. Regarding the second factor, in the seven general elections that Dr. Handley analyzed in Robeson County, less than 60% of Native Americans supported the same candidate in 5 of 7 elections. Handley Report at 41 (Table 22A). Similar voting patterns exist in the primaries that Dr. Handley evaluated. *Id.* at 42 (Table 22B).

Based on the elections that Dr. Handley analyzed, the third *Gingles* factor is not met with respect to Native Americans in Robeson County. Dr. Handley finds that a majority of non-Native Americans supported the same candidate as a majority of Native Americans in 5 of the 7 general elections she evaluated, and similar voting patterns exist in the primaries. Handley Report at 40-41 (Tables 22A & 22B). More importantly, the candidate of choice of Native Americans won every general election that Dr. Handley analyzed—all 7 of 7—and almost all of the primary elections as well. *Id.* Thus, non-Native Americans have not voted “as a bloc usually to defeat [Native Americans’] preferred candidates.” *Gingles*, 478 U.S. at 56.

2. African Americans

Dr. Chen and Dr. Handley also evaluated the African American community across all three counties in this grouping.

With respect to African Americans, Dr. Chen finds that it is not possible to create even a non-contiguous district that would have an African-American CVAP above 50%. Chen Report at 18. Dr. Chen finds that it may be possible to create a non-contiguous majority-African American district using total VAP from the Decennial Census rather than CVAP, but in any

event, he finds that it is not possible to create a contiguous majority-African American district using total VAP. *Id.*

Dr. Handley finds that there is bloc voting in this grouping with respect to African Americans. Dr. Handley finds that over 82% of African Americans supported the same candidate in all general elections she studied. Handley Report at 18 (Table 7). And Dr. Handley calculates that between 26.3% and 46.0% of non-African Americans supported the black-preferred candidate in the general elections she studied. *Id.*

The below table summarizes the results of each state legislative and statewide election in this grouping since 2012 that had an African-American Democratic candidate.

Columbus-Pender-Robeson					
Year	Election	BVAP of District or Counties (for Statewide Elections)	African-American Candidate	Result for African-American Candidate in District or Counties	Share of Two-Party Vote for African-American Candidate
General Elections					
2018	Senate District 13	26.4%	Campbell	Lost	37.5%
2018	House District 46	24.7%	Yates-Lockamy	Lost	36.7%
2016	Lt. Governor	24.5%	Coleman	Lost	43.7%
2016	Treasurer	24.5%	Blue III	Lost	47.0%
2012	President	24.5%	Obama	Won	50.3%
2012	Lt. Governor	24.5%	Coleman	Won	57.4%
Primary Election					
2018	Senate District 13	26.4%	Campbell	Won	69.2%
2016	Lt. Governor	24.5%	Coleman	Won	41.6%*
2016	Treasurer	24.5%	Blue III	Won	64.8%
2016	Attorney General	24.5%	Williams	Won	60.1%
2016	Commissioner of Labor	24.5%	Ferguson	Lost	38.5%
2014	Senate District 13	26.4%	Williams	Lost	27.3%*
2012	Commissioner of Labor	24.5%	Richardson	Lost	27.9%

Dr. Handley finds that the minimum BVAP necessary for the African American-preferred candidate to have won the general elections she analyzed in these counties ranges from 5.5% to 49.7%. Handley Report at 18 (Table 7). Across the general elections she studied, the average minimum BVAP necessary for African Americans to elect candidates of their choice is 30.1%. *See id.*

f. Cumberland

Dr. Chen finds that it is not possible three non-contiguous districts that are majority-African American in Cumberland County. Chen Report at 19.

Regarding the second *Gingles* factor, Dr. Handley finds that over 83% of African Americans have supported the same candidate in all general elections studied in this county. Handley Report at 19 (Table 8A).

There is far less white bloc voting under the third *Gingles* factor, however. In 2 of the 7 general elections and 4 of the 7 Democratic primaries that Dr. Handley analyzed, a majority or plurality of white voters supported the African American-preferred candidate (in the 2018 general elections in House Districts 42 and 43, the 2018 Democratic primary in House District 43, the 2016 Lieutenant Governor primary, and the 2012 Lieutenant Governor and Commission of Labor primaries). Handley Report at 19-20 (Tables 8A & 8B). In the remaining general elections studied, white crossover voting ranged from 29.4% to 42.4%, with similar figures for the remaining Democratic primaries.

Election results since 2012 indicate that whites have not voted “as a bloc usually to defeat the minority’s preferred candidates” in Cumberland County. *Gingles*, 478 U.S. at 56. As depicted in the table below, of the state legislative and statewide general elections in Cumberland County since 2012 that had an African American candidate, the African American candidate won

9 of the 10 elections. Like in *Cooper*, of those races that African American candidates won, the “closest election” saw an African American candidate win 57% of the vote, and African American candidates won much higher margins in most of the other elections. *Id.* at 1470. The BVAP in these elections ranged from 37.1% to 52.6%. *See id.* Similar results have occurred in Democratic primaries this decade.

Cumberland					
Year	Election	BVAP of District or Counties (for Statewide Elections)	African American Candidate	Result for African American Candidate in District or Counties	Share of Two-Party Vote for African American Candidate
General Elections					
2018	House District 42	42.2%	Lucas, Jr.	Won	76.1%
2018	House District 43	50.0%	Floyd	Won	74.1%
2016	Senate District 19	22.5%	Morris	Lost	43.6%
2016	Lt. Governor	37.1%	Coleman	Won	57.3%
2016	Treasurer	37.1%	Blue III	Won	57.6%
2012	House District 42	52.6%	Lucas, Jr.	Won	77.5%
2012	House District 43	51.5%	Floyd	Won	69.6%
2012	President	37.1%	Obama	Won	59.9%
2012	Lt. Governor	37.1%	Coleman	Won	61.6%
Primary Elections					
2018	House District 43	50.0%	Floyd	Won	79.2%
2016	Lt. Governor	37.1%	Coleman	Won	59.1%*
2016	Treasurer	37.1%	Blue III	Won	52.3%
2016	Attorney General	37.1%	Williams	Won	66.7%
2016	Commissioner of Labor	37.1%	Ferguson	Lost	46.0%
2012	Commissioner of Labor	37.1%	Richardson	Won	42.8%*

Across the general elections that Dr. Handley studied, the average minimum BVAP necessary for African Americans to elect candidates of their choice in Cumberland County is 18.3%.⁴ See Handley Report at 19-20 (Tables 8A & 8B).

g. Duplin-Onslow Grouping

The first *Gingles* factor is not met in this grouping. Dr. Chen finds that it is impossible to create even a non-contiguous district in this grouping in which African Americans could constitute a majority. Chen Report at 20. He finds that the maximum African American CVAP that African Americans could comprise in a non-contiguous district in this grouping while adhering to equal population requirements is 37.61%. *Id.*

While the first *Gingles* factor is not met, for completeness, there is racial bloc voting in this grouping. Dr. Handley finds that over 97% of African Americans have supported the same candidate in all general elections studied, and white crossover voting has been between just 15.1% and 28.0% in these general elections. Handley Report at 21 (Table 9).

The below table summarizes the results of each state legislative and statewide election in this grouping since 2012 that had an African-American Democratic candidate.

⁴ For purposes of the averages calculated in this brief, elections in which a majority of white voters supported the African-American-preferred candidate are considered to require 0% BVAP for the African-American-preferred candidate to have won.

Duplin-Onslow					
Year	Election	BVAP of District or Counties (for Statewide Elections)	African-American Candidate	Result for African-American Candidate in District or Counties	Share of Two-Party Vote for African-American Candidate
General Elections					
2018	House District 4	22.6%	Love	Lost	35.7%
2016	Lt. Governor	18.5%	Coleman	Lost	34.7%
2016	Treasurer	18.5%	Blue III	Lost	35.7%
2012	President	18.5%	Obama	Lost	38.7
2012	Lt. Governor	18.5%	Coleman	Lost	41.9%
Primary Elections					
2018	House District 4	22.6	Love	Won	57.5%
2016	Lt. Governor	18.5%	Coleman	Won	46.7% *
2016	Treasurer	18.5%	Blue III	Won	54.9%
2016	Attorney General	18.5%	Williams	Won	64.6%
2016	Commissioner of Labor	18.5%	Ferguson	Won	51%
2012	Commissioner of Labor	18.5%	Richardson	Lost	29.1% *

Dr. Handley finds that the minimum BVAP necessary for the African American-preferred candidate to have won the general elections she analyzed in these counties ranges from 31.2% to 51.7%. Handley Report at 21 (Table 9). Across the general elections she studied, the average minimum BVAP necessary for African Americans to elect candidates of their choice in this grouping is 42.3%. *See id.*

h. Forsyth-Yadkin

Dr. Chen finds that it is not possible to create two contiguous districts in this grouping that are majority-African American. Chen Report at 21. Regarding the second *Gingles* factor, Dr. Handley finds that over 98% of African Americans have supported the same candidate in all general elections studied in these counties. Handley Report at 22 (Table 10).

However, with respect to the third *Gingles* factor, there is insufficient evidence of legally significant white bloc voting in this county grouping. In 4 of 8 of general elections and 4 of 6 Democratic primaries that Dr. Handley analyzed, a majority of whites supported the African-American-preferred candidate (in the 2018 general elections in House District 71, House District 72, and Senate District 32, in the 2014 general election in House District 71, in the 2016 Democratic primaries for Lieutenant Governor, Commissioner of Labor, and Treasurer, and in the 2012 Democratic primary for Lieutenant Governor). Handley Report at 22 (Table 10); *see Covington*, 316 F.R.D. at 170.

Election results since 2012 further demonstrate that whites have not voted “as a bloc usually to defeat the minority’s preferred candidates.” *Gingles*, 478 U.S. at 56. As depicted in the table below, African American candidates won 9 of 11 general elections and 7 of 9 Democratic primaries across these counties since 2012. In the most probative elections for present purposes—endogenous state House and state Senate races—African American candidates have won over 70% of the two-party vote in all seven general elections, even though the BVAPs of the districts involved were between just 36.6% and 47.5%. *See Cooper*, 137 S. Ct. at 1470.

Forsyth-Yadkin					
Year	Election	BVAP of District or Counties (for Statewide Elections)	African American Candidate	Result for African-American Candidate in District or Counties	Share of Two-Party Vote for African American Candidate
General Elections					
2018	House District 71	36.6%	Terry	Won	72.7%
2018	House District 72	47.5%	Montgomery	Won	79.1%
2018	Senate District 32	39.2%	Lowe	Won	72.9%
2016	Lt. Governor	23.6%	Coleman	Lost	49.1%

2016	Treasurer	23.6%	Blue III	Lost	47.7%
2014	House District 71	45.5%	Terry	Won	76.6%
2012	House District 71	45.5%	Terry	Won	77.9%
2012	House District 72	45.0%	Hanes, Jr.	Won	74.4%
2012	Senate District 32	42.5%	Parmon	Won	73.0%
2012	President	23.6%	Obama	Won	51.0%
2012	Lt. Governor	23.6%	Coleman	Won	50.9%
Primary Elections					
2016	Lt. Governor	23.6%	Coleman	Won	55.6% *
2016	Treasurer	23.6%	Blue III	Won	59.1%
2016	Attorney General	23.6%	Williams	Lost	45.1%
2016	Commissioner of Labor	23.6%	Ferguson	Won	60.5%
2012	House District 71	45.5%	Terry	Won	51.3%
2012	House District 72	45.0%	Hanes, Jr.	Won	43.6% *
2012	House District 74	10.7%	Gladman	Lost	44.1%
2012	Senate District 32	42.5%	Parmon	Won	60.0% *
2012	Commissioner of Labor	23.6%	Foster	Won	38.9% *

Across the general elections that Dr. Handley studied across these counties, the average minimum BVAP necessary for African Americans to elect candidates of their choice in this grouping is 16.9%. Handley report at 22 (Table 10). Dr. Handley also performed her analysis for elections solely within Forsyth County and found less polarized voting when focusing just on this county. *Id.* at 38 (Table 20). Accordingly, the average minimum BVAPs necessary for the African American-preferred candidate to have won the general elections in Forsyth County is lower than that across the full county grouping. *See id.*

i. Nash-Franklin

At trial, Dr. Chen presented an analysis showing that, while it is possible to create a majority- African American district in this grouping using voting-age population data from the Decennial Census, any such district would have a Polsby-Popper scores below 0.05. PX123 at 145-47 (Chen Rebuttal Report). But Dr. Chen concludes in his newest report that it is possible

create a majority-African American district with a Polsby-Popper score above 0.05 if using CVAP statistics rather than all VAP. Chen Report at 22.

With respect to the second and third *Gingles* factors, Dr. Handley finds that over 84% of African Americans have supported the same candidate in all general elections she studied, and white crossover voting has been between 20.8% and 44.8% in these general elections. Handley Report at 23 (Table 11).

The below table summarizes the results of each state legislative and statewide election in this grouping since 2012 that had an African-American Democratic candidate.

Nash-Franklin					
Year	Election	BVAP of District or Counties (for Statewide Elections)	African-American Candidate	Result for African-American Candidate in District or Counties	Share of Two-Party Vote for African-American Candidate
General Elections					
2018	House District 25	40.73%	Gailliard	Won	53.3%
2016	Lt. Governor	33.0%	Coleman	Lost	47.3%
2016	Treasurer	33.0%	Blue III	Lost	48.7%
2016	House District 7	50.7%	Richardson	Won	67.8%
2016	House District 25	16.1%	Gailliard	Lost	31.9%
2012	President	33.0%	Obama	Lost	49.5%
2012	Lt. Governor	33.0%	Coleman	Won	51.2%
Primary Elections					
2016	Lt. Governor	33.0%	Coleman	Won	66.5%*
2016	Treasurer	33.0%	Blue III	Won	65.1%
2016	Attorney General	33.0%	Williams	Lost	39.5%
2016	Commissioner of Labor	33.0%	Ferguson	Lost	25.2%
2012	House District 7	50.7%	Bryant	Won	83.5%
2012	Commissioner of Labor	33.0%	Foster	Won	36.2%*

Dr. Handley finds that the BVAP necessary for the African American-preferred candidate to have won the general elections she analyzed in these counties ranges from 11.9% to 49.6%.

Handley Report at 23 (Handley Report). Across the general elections she studied, the average BVAP necessary for African Americans to elect candidates of their choice in this grouping is 35.2%.

j. Guilford

The first *Gingles* factor is clearly met, at least as to the creation of a single district, given the racial demographics of Guilford County. Regarding the second *Gingles* factor, Dr. Handley finds that over 98% of African Americans have supported the same candidate in all general elections studied in this county. Handley Report at 24 (Table 12A).

However, with respect to the third *Gingles* factor, there is insufficient evidence of legally significant white bloc voting in Guilford County. In 4 of the 9 general elections that Dr. Handley analyzed, a majority of white voters supported the African-American-preferred candidate (in the 2018 general elections in House District 58, House District 60, and Senate District 28, and in the 2016 general election in Senate District 28). *Id.*; see *Covington*, 316 F.R.D. at 170. And in the remaining general elections that Dr. Handley analyzed, white crossover voting exceeded 40% in all but one of the elections. Handley Report at 24 (Table 12A). Similar voting patterns occurred in Democratic primaries. *Id.* at 25 (Table 12B).

Election results since 2012 further demonstrate that whites have not voted “as a bloc usually to defeat the minority’s preferred candidates” in Guilford County. *Gingles*, 478 U.S. at 56. As depicted in the table below, African American candidates won all 12 relevant Democratic primaries since 2012 and 9 of 11 general elections. In the seven state House and state Senate general elections that African American candidates have won, the African American candidate won over 68% of the vote, including in three districts where the BVAP was between 40%-43%. *See Cooper*, 137 S. Ct. at 1470.

Guilford					
Year	Election	BVAP of District or Counties (for Statewide Elections)	African-American Candidate	Result for African-American Candidate in District or Counties	Share of Two-Party Vote for African-American Candidate
General Elections					
2018	House District 58	42.7%	Quick	Won	76.8%
2018	House District 60	40.1%	Brockman	Won	69.0%
2018	Senate District 28	43.6%	Robinson	Won	75.3%
2016	Senate District 28	56.5%	Robinson	Won	83.9%
2016	Lt. Governor	32.1%	Coleman	Won	58.2%
2016	Treasurer	32.1%	Blue III	Won	57.6%
2014	House District 61	15.3%	Weatherford	Lost	32.8%
2012	House District 58	51.1%	Adams	Won	79.9%
2012	House District 61	15.3%	Weatherford	Lost	36.2%
2012	President	32.1%	Obama	Won	58.3%
2012	Lt. Governor	32.1%	Coleman	Won	58.0%
Primary Elections					
2018	House District 58	42.7%	Quick	Won	80.2%
2016	House District 58	51.1%	Quick	Won	71.5%
2016	Lt. Governor	32.1%	Coleman	Won	57.9% *
2016	Treasurer	32.1%	Blue III	Won	54.3%
2016	Attorney General	32.1%	Williams	Won	54.6%
2016	Commissioner of Labor	32.1%	Ferguson	Won	61.3%
2014	House District 58	51.1%	Johnson	Won	42.6% *
2014	House District 60	51.4%	Brockman	Won	54.2% *
2014	Senate District 28	56.5%	Robinson	Won	59.4%
2012	House District 60	51.4%	Brandon	Won	66.2%
2012	Senate District 28	56.5%	Robinson	Won	72.0%
2012	Commissioner of Labor	32.1%	Foster	Won	39.2% *

Across the general elections that Dr. Handley studied, the average minimum BVAP necessary for African Americans to elect candidates of their choice in Guilford County is 12.8%.
See Handley Report at 24 (Table 12A).

k. Pitt-Lenoir

With respect to the first *Gingles* factor, Dr. Chen finds that it is possible to create a majority-African American district with a Reock score exceeding 0.15 and a Polsby-Popper score exceeding 0.05. Chen Report at 23.

Regarding the second *Gingles* factor, Dr. Handley finds that over 86% of African Americans supported the same candidate in all general elections she analyzed in this grouping. Dr. Handley also finds evidence of white bloc voting in this grouping. Handley Report at 26 (Table 13). Dr. Handley calculates white crossover voting of between 24.9% and 46.8% in the general elections she analyzed. *Id.*

The below table summarizes the results of each state legislative and statewide election in this grouping since 2012 that had an African-American Democratic candidate.

Pitt-Lenoir					
Year	Election	BVAP of District or Counties (for Statewide Elections)	African-American Candidate	Result for African-American Candidate in District or Counties	Share of Two-Party Vote for African-American Candidate
General Elections					
2018	House District 8	44.9%	Smith	Won	39.7%
2018	House District 9	20.5%	Rixon	Lost	49.9%
2018	House District 12	37.4%	Graham	Lost	40.0%
2016	Lt. Governor	34.2%	Coleman	Won	51.4%
2016	Treasurer	34.2%	Blue III	Won	52.6%
2012	President	34.2%	Obama	Won	52.6%
2012	Lt. Governor	34.2%	Coleman	Won	54.7%
Primary Elections					
2018	House District 8	44.9%	Smith	Won	50.0%
2016	Lt. Governor	34.2%	Coleman	Won	53.6%
2016	Treasurer	34.2%	Blue III	Won	54.6%
2016	Attorney General	34.2%	Williams	Won	61.1%
2016	Commissioner of Labor	34.2%	Ferguson	Lost	46.5%
2012	Commissioner of	34.2%	Richardson	Lost	30.2%*

	Labor				
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Dr. Handley finds that the minimum BVAP necessary for the African American-preferred candidate to have won the general elections she analyzed in these counties ranges from 12.2% to 57.3%. Handley Report at 26 (Table 13). Across the general elections she studied, the average minimum BVAP necessary for African Americans to elect candidates of their choice in this grouping is 30.4%. *See id.*

I. Mecklenburg

The first *Gingles* factor is clearly met, at least as to the creation of a single district, given the racial demographics of Mecklenburg County. Regarding the second *Gingles* factor, Dr. Handley finds that over 89% of African Americans have supported the same candidate in all general elections studied in this county. Handley Report at 27 (Table 14A).

However, there is insufficient evidence of legally significant white bloc voting in Mecklenburg County for purposes of the third *Gingles* factor. In 14 of 19 of the general elections that Dr. Handley analyzed, a majority of white voters supported the African-American-preferred candidate. Handley Report at 27 (Table 14A); *see Covington*, 316 F.R.D. at 170.

Election results since 2012 further demonstrate that whites have not voted “as a bloc usually to defeat the minority’s preferred candidates.” *Gingles*, 478 U.S. at 56. As depicted in the table below, African American candidates won 15 of 16 relevant Democratic primaries since 2012 and 18 of 22 general elections in that time period. In 2018, African American candidates won state House races in Mecklenburg County in districts with BVAPs as low as 6.2% and 18.2%, and other African American candidates won landslide victories in districts with BVAPs between 30% and 40%. *See Cooper*, 137 S. Ct. at 1470.

Mecklenburg					
Year	Election	BVAP of District or Counties (for Statewide Elections)	African-American Candidate	Result for African-American Candidate in District or Counties	Share of Two-Party Vote for African-American Candidate
General Elections					
2018	House District 92	30.2%	Beasley	Won	70.0%
2018	House District 99	49.5%	Majeed	Won	82.4%
2018	House District 101	50.8%	Logan	Won	78.7%
2018	House District 104	6.2%	Lofton	Won	51.8%
2018	House District 106	38.0%	Cunningham	Won	80.6%
2018	Senate District 40	38.9%	Waddell	Won	75.6%
2016	House District 92	18.2%	Beasley	Won	54.4%
2016	House District 101	51.3%	Earle	Won	76.0%
2016	House District 105	9.5%	Green-Johnson	Lost	44.7%
2016	Senate District 38	52.5%	Ford	Won	79.1%
2016	Senate District 40	51.8%	Waddell	Won	82.5%
2016	Lt. Governor	30.2%	Coleman	Won	59.6%
2016	Treasurer	30.2%	Blue III	Won	58.4%
2014	House District 92	18.2%	Bradford	Lost	47.5%
2014	House District 106	51.1%	Cunningham	Won	86.6%
2014	Senate District 38	52.5%	Ford	Won	79.7%
2014	Senate District 41	13.2%	McRae	Lost	39.5%
2012	House District 92	18.2%	Bradford	Lost	48.6%
2012	Senate District 38	52.5%	Ford	Won	80.2%
2012	Senate District 40	51.8%	Graham	Won	84.1%
2012	President	30.2%	Obama	Won	61.3%
2012	Lt. Governor	30.2%	Coleman	Won	59.8%
Primary Elections					
2018	House District 99	49.5%	Majeed	Won	57.3% *
2018	House District 101	50.8%	Logan	Won	50.0% *
2018	House District 106	38.0%	Cunningham	Won	88.9%
2018	Senate District 38	48.5%	Ford	Lost ⁵	40.7%
2016	House District 101	51.3%	Earle	Won	78.6%
2016	House District 107	52.5%	Alexander, Jr.	Won	90.1%
2016	Senate District 38	52.5%	Ford	Won	52.1%
2016	Senate District 40	51.8%	Waddell	Won	64.7%

⁵ In the 2016 Democratic primary in Senate District 38, Dr. Handley finds that the candidate of choice of African Americans was not the African American candidate, but rather another candidate who won the election.

2016	Lt. Governor	30.2%	Coleman	Won	55.2% *
2016	Treasurer	30.2%	Blue III	Won	52.7%
2016	Attorney General	30.2%	Williams	Won	55.7%
2016	Commissioner of Labor	30.2%	Ferguson	Won	57.0%
2014	Senate District 40	51.8%	Waddell	Won	41.9% *
2012	House District 101	51.3%	Earle	Won	84.9*
2012	Senate District 38	52.5%	Ford	Won	52.2%
2012	Commissioner of Labor	30.2%	Richardson	Won	40.7% *

m. Buncombe

The first *Gingles* factor is not met in this grouping. Dr. Chen finds that it is impossible to create even a non-contiguous district in this grouping in which African Americans could constitute a majority. Chen Report at 15. He finds that the maximum African American CVAP that African Americans could comprise in a non-contiguous district in this grouping while adhering to equal population requirements is 16.81%. *Id.* Dr. Handley did not analyze this grouping given the relatively low number of African Americans who live in this county.

n. Brunswick-New Hanover

The first *Gingles* factor is not met in this grouping. Dr. Chen finds that it is impossible to create even a non-contiguous district in this grouping in which African Americans could constitute a majority. Chen Report at 14. He finds that the maximum African American CVAP that African Americans could comprise in a non-contiguous district in this grouping while adhering to equal population requirements is 35.70%. *Id.* Dr. Handley did not analyze this grouping given the relatively low number of African Americans who live in these counties.

III. Senate County Groupings

a. Alamance-Guilford-Randolph

After removing Senate Districts 24 and 28 (which cannot be altered under the Court's order), the remainder of this county grouping does not contain enough African Americans to constitute a majority in one of the two remedial districts to be created. Dr. Chen finds that it is impossible to create even a non-contiguous district in this grouping in which African Americans could constitute a majority. Chen Report at 7. He finds that the maximum African American CVAP that African Americans could comprise in a non-contiguous district in the remaining territory in this grouping while adhering to equal population requirements is 34.06%. *Id.*

b. Davie-Forsyth

At trial, Dr. Chen established in unrebutted testimony that it is not “mathematically possible” to create a majority-minority district in the Davie-Forsyth county grouping. Tr. 518:4-15. Dr. Chen found that, even if creating a non-contiguous district, the maximum BVAP possible for a district in this grouping while adhering to equal population requirements is just 44.81%. PX123 at 148-49 (Chen Rebuttal Report). Dr. Chen has confirmed in his most recent report that it would not be possible to create a majority African American district in this grouping if using CVAP rather than total VAP. Chen Report at 8. Dr. Chen finds that the maximum percent CVAP that African Americans could comprise in a non-contiguous district in this grouping while adhering to equal population requirements is 45.55%. *Id.*

Dr. Handley's analysis indicates that the third *Gingles* factor also is not met in this grouping. Just as was the case with the Forsyth-Yadkin grouping in the House, there is insufficient evidence of legally significant white bloc voting in the Davie-Forsyth grouping. In 4 of 8 of the general elections and 4 of 6 primaries that Dr. Handley analyzed, a majority of whites

supported the African-American-preferred candidate (in the 2018 general elections in House District 71, House District 72, and Senate District 32, in the 2014 general election in House District 71, and in the 2016 Democratic primaries for Commissioner of Labor and Treasurer). Handley Report at 33 (Table 17); *see Covington*, 316 F.R.D. at 170.

Election results since 2012 confirm that whites have not voted “as a bloc usually to defeat the minority’s preferred candidates.” *Gingles*, 478 U.S. at 56. As depicted in the table below, African American candidates won 9 of 11 general elections and 7 of 9 Democratic primaries across these counties since 2012. In the most probative elections for present purposes—endogenous state House and state Senate races—African American candidates have won over 70% of the two-party vote in all seven general elections, even though the BVAPs of the districts involved were between just 36.6% and 47.5%. *See Cooper*, 137 S. Ct. at 1470.

Davie-Forsyth					
Year	Election	BVAP of District or Counties (for Statewide Elections)	African-American Candidate	Result for African-American Candidate in District or Counties	Share of Two-Party Vote for African-American Candidate
General Elections					
2018	House District 71	36.6%	Terry	Won	72.7%
2018	House District 72	47.5%	Montgomery	Won	79.1%
2018	Senate District 32	39.2%	Lowe	Won	72.9%
2016	Lt. Governor	23.8%	Coleman	Lost	49.2%
2016	Treasurer	23.8%	Blue III	Lost	47.6%
2014	House District 71	45.5%	Terry	Won	76.6%
2012	House District 71	45.5%	Terry	Won	77.9%
2012	House District 72	45.0%	Hanes, Jr.	Won	74.4%
2012	Senate District 32	42.5%	Parmon	Won	73.0%
2012	President	23.8%	Obama	Won	50.9%
2012	Lt. Governor	23.8%	Coleman	Won	50.7%
Primary Elections					
2016	Lt. Governor	23.8%	Coleman	Won	55.6% *
2016	Treasurer	23.8%	Blue III	Won	59.2%
2016	Attorney General	23.8%	Williams	Lost	45.0%

2016	Commissioner of Labor	23.8%	Ferguson	Won	60.2%
2012	House District 71	45.5%	Terry	Won	51.3%
2012	House District 72	45.0%	Hanes, Jr.	Won	43.6%*
2012	House District 74	10.7%	Gladman	Lost	44.1%
2012	Senate District 32	42.5%	Parmon	Won	60.0%*
2012	Commissioner of Labor	23.8%	Foster	Won	39.3%*

Across the general elections that Dr. Handley studied, the average minimum BVAP necessary for African Americans to elect candidates of their choice is 15.5%. *See* Handley Report at 33 (Table 17). Dr. Handley also performed her analysis for elections solely within Forsyth County and found less polarized voting when focusing just on this county. *Id.* at 38 (Table 20). Accordingly, the average minimum BVAPs necessary for the African American-preferred candidate to have won the general elections in Forsyth County is lower than that across the full county grouping. *See id.*

c. Duplin-Harnett-Johnston-Lee-Nash-Sampson

With respect to the *Gingles* factor, Dr. Chen finds that it is impossible to create even a non-contiguous district in this grouping in which African Americans could constitute a majority. Chen Report at 11. He finds that the maximum African American CVAP that African Americans could comprise in a non-contiguous district in this grouping while adhering to equal population requirements is 47.48%. *Id.*

While the first *Gingles* factor is not met, for completeness, it does appear that there is racial bloc voting in this grouping. Dr. Handley finds that over 84% of African Americans have supported the same candidate in all general elections studied, and white crossover voting has been between 15.1% and 44.8% in these general elections. Handley Report at 34 (Table 18A).

The below table summarizes the results of each state legislative and statewide election in this grouping since 2012 that had an African-American Democratic candidate.

Johnston-Sampson-Nash-Harnett-Duplin					
Year	Election	BVAP of District or Counties (for Statewide Elections)	African-American Candidate	Result for African-American Candidate in District or Counties	Share of Two-Party Vote for African-American Candidate
General Elections					
2018	House District 4	22.6%	Love	Lost	35.7%
2018	House District 25	40.73%	Gailliard	Won	53.3%
2018	Senate District 10	24.1%	Moore	Lost	37.5%
2016	Lt. Governor	23.6%	Coleman	Lost	38.9%
2016	Treasurer	23.6%	Blue III	Lost	40.6%
2012	President	23.6%	Obama	Lost	42.0%
2012	Lt. Governor	23.6%	Coleman	Lost	44.4%
Primary Elections					
2018	House District 4	22.6	Love	Won	57.5%
2016	Lt. Governor	23.6%	Coleman	Won	58.6%
2016	Treasurer	23.6%	Blue III	Won	59.2%
2016	Attorney General	23.6%	Williams	Won	50.5%
2016	Commissioner of Labor	23.6%	Ferguson	Lost	32.6%
2012	Commissioner of Labor	23.6%	Richardson	Lost	30.8% *

Dr. Handley finds that the minimum BVAP necessary for the African American-preferred candidate to have won the general elections she analyzed in these counties ranges from 11.9% to 45.0%. Handley Report at 34 (Table 18A). Across the general elections she studied, the average minimum BVAP necessary for African Americans to elect candidates of their choice is 36.1%. *See id.*

d. Franklin-Wake

The first *Gingles* factor is clearly met, as least to the creation of a single district, given the racial demographics of these counties. Regarding the second *Gingles* factor, Dr. Handley

finds that over 99% of African Americans have supported the same candidate in all general elections studied in this county grouping. Handley Report at 36 (Table 19A).

However, with respect to the third *Gingles* factor, there is insufficient evidence of legally significant white bloc voting in this grouping. In 12 of 20 primary and general elections that Dr. Handley analyzed, a majority of whites voted for the African American-preferred candidate. *Id.* at 36-37 (Tables 19A & 19B); *see Covington*, 316 F.R.D. at 170. And with respect to state legislative elections in particular, a majority of whites supported the African American-preferred candidate in 6 of 8 general elections and 2 of 2 Democratic primaries. *Id.* In the few primary and general elections that Dr. Handley analyzed in this grouping where a majority of whites did not support the African American-preferred candidate, white crossover voting exceeded 40% in all but two of these elections. *Id.*

Dr. Handley also performed her analysis for elections solely within Wake County and found less polarized voting when focusing just on this county: she found that a majority of white voters supported the African American-preferred candidate in 9 of the 13 general elections she analyzed in Wake County. Handley Report at 29 (Table 15A).

Election results since 2012 confirm that whites have not voted “as a bloc usually to defeat the minority’s preferred candidates” in this grouping. *Gingles*, 478 U.S. at 56. As depicted in the table below, African American candidates won all 12 relevant general elections and 7 of 10 primaries since 2012. In 2018, an African American candidate won a state House race in Wake County in a district with a BVAP of just 14.3%, and other African American candidates won landslide victories in districts with BVAPs between 38% and 49%. *See id.* at 1470.

Franklin-Wake					
Year	Election	BVAP of District or Counties (for Statewide Elections)	African-American Candidate	Result for African-American Candidate in District or Counties	Share of Two-Party Vote for African-American Candidate
General Elections					
2018	House District 33	44.2%	Gill	Won	78.7%
2018	House District 37	14.3%	Batch	Won	51.1%
2018	House District 38	48.3%	Holley	Won	84.1%
2018	Senate District 14	38.9%	Blue Jr.	Won	71.4%
2016	House District 38	51.4%	Holley	Won	84.8%
2016	Lt. Governor	21.1%	Coleman	Won	55.7%
2016	Treasurer	21.1%	Blue III	Won	55.4%
2014	House District 33	51.4%	Gill	Won	87.3%
2014	House District 38	51.4%	Holley	Won	79.9%
2012	House District 38	51.4%	Holley	Won	87.7%
2012	President	21.1%	Obama	Won	55.4%
2012	Lt. Governor	21.1%	Coleman	Won	54.9%
Primary Elections					
2018	House District 33	44.2%	Gill	Won	60.2%
2016	House District 33	51.4%	Gill	Won	64.1%
2016	Lt. Governor	21.1%	Coleman	Won	60.7%*
2016	Treasurer	21.1%	Blue III	Won	63.4%
2016	Attorney General	21.1%	Williams	Lost	35.4%
2016	Commissioner of Labor	21.1%	Ferguson	Lost	27.8%
2012	House District 33	51.4%	Gill	Won	78.7%
2012	House District 38	51.4%	Holley	Won	60.8%*
2012	House District 39	26.5%	Mial	Lost	29.5%
2012	Commissioner of Labor	21.1%	Foster	Won	37.7%*

e. Mecklenburg

The analysis for the Mecklenburg Senate county grouping is identical to that for the Mecklenburg grouping in the House. Thus, there is insufficient evidence of legally significant white bloc voting in this Senate grouping under the third *Gingles* factor.

f. New Hanover-Bladen-Pender-Brunswick

The first *Gingles* factor is not met in this grouping. Dr. Chen finds that it is impossible to create even a non-contiguous district in this grouping in which African Americans could constitute a majority. Chen Report at 9. He finds that the maximum African American CVAP that African Americans could comprise in a non-contiguous district in this grouping while adhering to equal population requirements is 28.11%. *Id.* Dr. Handley did not analyze this grouping given there relatively low number of African Americans who live in these counties.

g. Buncombe-Henderson-Transylvania

The first *Gingles* factor is not met in this grouping. Dr. Chen finds that it is impossible to create even a non-contiguous district in this grouping in which African Americans could constitute a majority. Chen Report at 10. He finds that the maximum African American CVAP that African Americans could comprise in a non-contiguous district in this grouping while adhering to equal population requirements is 10.47%. *Id.* Dr. Handley did not analyze this grouping given the relatively low number of African Americans who live in these counties.

Respectfully submitted this the 17th day of September, 2019

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CERTIFICATE OF SERVICE

I hereby certify that I have this day served a copy of the foregoing *by email*, addressed to the following persons at the following addresses which are the last addresses known to me:

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This the 17th day of September, 2019.

/s/ Edwin M. Speas, Jr.

Edwin M. Speas, Jr.

EXHIBIT A

EXPERT REPORT OF JOWEI CHEN, Ph.D.

September 17, 2019

Questions Analyzed: Plaintiffs' counsel asked me to analyze the following questions in this report:

1) Within each of the 2017 Senate Plan county groupings listed below, is it possible to create a single Senate district satisfying five characteristics: 1) At least 50% African-American Citizen Voting Age Population ("CVAP"); 2) Within the 5% population deviation requirement described in the 2017 Adopted Criteria; 3) Geographically contiguous; 4) A Reock compactness score of at least 0.15; and 5) A Polsby-Popper compactness score of at least 0.05?

Senate County Groupings:

- 1) Alamance-Guilford-Randolph (while freezing SD-24 and SD-28);
- 2) Bladen-Brunswick-New Hanover-Pender;
- 3) Buncombe-Henderson-Transylvania;
- 4) Duplin-Harnett-Johnston-Lee-Nash-Sampson;
- 5) Davie-Forsyth.

2) Within each of the 2017 House Plan county groupings listed below, is it possible to create a single House district satisfying the five aforementioned characteristics?

House County Groupings:

- 1) Alamance;
- 2) Anson-Union;
- 3) Brunswick-New Hanover;
- 4) Buncombe;
- 5) Cabarrus-Davie-Montgomery-Richmond-Rowan-Stanly (while freezing HD-66);
- 6) Cleveland-Gaston;
- 7) Columbus-Pender-Robeson;
- 8) Duplin-Onslow;
- 9) Franklin-Nash; and
- 10) Lenoir-Pitt.

3) Within the Cumberland county grouping in the 2017 House Plan, is it possible to create three House districts that each satisfy the five aforementioned characteristics?

4) Within the Forsyth-Yadkin county grouping in the 2017 House Plan, is it possible to create two House districts that each satisfy the five aforementioned characteristics?

Summary of Findings: For the Senate Plan, I found that within each of the five county groupings I analyzed, it was not possible to create a single majority-African-American House district that satisfies the five characteristics listed above. Table 1 summarizes my findings regarding each of the Senate county groupings I analyzed.

For the House Plan, I found that within the Franklin-Nash and the Lenoir-Pitt county groupings, it is possible to create a single majority-African-American House district that satisfies the five characteristics listed above. Within the eight other House county groupings that I analyzed, I found that it is not possible to produce the number of majority-African-American House districts in question (i.e., three in Cumberland, two in Forsyth-Yadkin, and one in all other county groupings). Table 2 summarizes my findings regarding each of the House county groupings I analyzed.

For most of these House and Senate county groupings, I was able to arrive at my conclusions by analyzing a simple question: Within the county grouping, is it mathematically possible to form one or more 50%+ African-American CVAP districts by simply combining together the most heavily African-American census blocks, while ignoring districts' geographic contiguity, Reock scores, and Polsby-Popper scores? If African-Americans are not sufficiently numerous within a county grouping to form even a geographically non-contiguous district, then it is obviously impossible to form a majority-African-American district satisfying all five of the characteristics listed above.

For the remaining county groupings in which the African-American population is sufficiently numerous to potentially form one or more majority-African-American districts, I further analyzed whether such districts could be formed while adhering to the five characteristics listed above, including geographic contiguity, a Reock score of at least 0.15, and a Polsby-Popper score of at least 0.05. To analyze this question, I conducted a large number of computer simulations in which district boundaries were drawn within these county groupings in a race-conscious manner. Specifically, the algorithm attempted to intentionally create a 50% African-American CVAP district while otherwise prioritizing geographic compactness and not violating the geographic contiguity and 5% population deviation requirements. Using this simulation algorithm, I determined that it is possible to create a majority -African-American district satisfying the five aforementioned criteria in the Lenoir-Pitt and the Franklin-Nash House county groupings, but not in the other county groupings I analyzed using this method. In programming

this particular race-conscious computer simulation algorithm, I ignored any consideration of county traversals or municipal, precinct, or VTD boundaries.

For all of the results I present below, I use Citizen Voting Age Population (CVAP) data from the most recent American Community Survey. However, with one exception, I have confirmed that my findings do not change if using total Voting Age Population data from the 2010 Decennial Census. That is, I have confirmed that for any grouping where I report that it is not possible to create a majority-African-American district, that is the case regardless of whether one uses CVAP or total VAP, and the same is true for any grouping where I report that it is possible to create a majority-African-American district. The one exception, as documented below, is the Franklin-Nash grouping in the House, where I find that it is possible to create a majority-African American district that is above the relevant compactness thresholds when using CVAP but not when using total VAP.

For the purpose of determining whether districts comply with the equal population requirement, I rely upon 2010 Decennial Census population counts throughout this report. Specifically, the 5% population deviation requirement implies that all House districts must have a 2010 Census population between 75,490 and 83,435, while all Senate districts must have a 2010 Census population between 181,174 and 200,245.

Table 1: County Groupings from the 2017 Senate Plan

2017 Senate County Grouping:	Frozen Districts:	Finding:
Alamance-Guilford-Randolph	SD-24 and SD-28 are frozen	It is not possible to create even one non-contiguous majority-African-American district while adhering to the equal population requirement.
Bladen-Brunswick-New Hanover-Pender	none	It is not possible to create even one non-contiguous majority-African-American district while adhering to the equal population requirement.
Buncombe-Henderson-Transylvania	none	It is not possible to create even one non-contiguous majority-African-American district while adhering to the equal population requirement.
Davie-Forsyth	none	It is not possible to create even one non-contiguous majority-African-American district while adhering to the equal population requirement.
Duplin-Harnett-Johnston-Lee-Nash-Sampson	none	It is not possible to create even one non-contiguous majority-African-American district while adhering to the equal population requirement.

Note: The five required district characteristics are: 1) At least 50% African-American Citizen Voting Age Population ("CVAP"); 2) within the 5% population deviation requirement described in the 2017 Adopted Criteria; 3) geographically contiguous; 4) aReock compactness score of at least 0.15; and 5) a Polsby-Popper compactness score of at least 0.05.

Table 2: County Groupings from the 2017 House Plan

2017 House County Grouping:	Frozen Districts:	Finding:
Alamance	none	It is not possible to create even one non-contiguous majority-African-American district while adhering to the equal population requirement.
Anson-Union	none	It is not possible to create even one non-contiguous majority-African-American district while adhering to the equal population requirement.
Brunswick-New Hanover	none	It is not possible to create even one c non-contiguous majority-African-American district while adhering to the equal population requirement.
Buncombe	none	It is not possible to create even one non-contiguous majority-African-American district while adhering to the equal population requirement.
Cabarrus-Davie-Montgomery-Richmond-Rowan-Stanly	HD-66 is frozen	After freezing HD-66, it is not possible to create even one non-contiguous majority-African-American district while adhering to the equal population requirement.
Cleveland-Gaston	none	It is not possible to create even one non-contiguous majority-African-American district while adhering to the equal population requirement.
Columbus-Pender-Robeson	none	It is not possible to create even one non-contiguous majority-African-American district while adhering to the equal population requirement.
Cumberland	none	It is not possible to create even three non-contiguous majority-African-American districts while adhering to the equal population requirement.
Duplin-Onslow	none	It is not possible to create even one non-contiguous majority-African-American district while adhering to the equal population requirement.
Forsyth-Yadkin	none	It is not possible to create two geographically contiguous House districts with over a 50% African-American CVAP, while adhering to the equal population requirement.
Franklin-Nash	none	It is possible to create one majority-African-American House district satisfying the five characteristics listed below.
Lenoir-Pitt	none	It is possible to create one majority-African-American House district satisfying the five characteristics listed below.

Note: The five required district characteristics are: 1) At least 50% African-American Citizen Voting Age Population ("CVAP"); 2) within the 5% population deviation requirement described in the 2017 Adopted Criteria; 3) geographically contiguous; 4) a Reock compactness score of at least 0.15; and 5) a Polsby-Popper compactness score of at least 0.05.

Analysis of Senate Plan County Groupings:

The Alamance-Guilford-Randolph Senate Plan County Grouping: In the 2017 Senate Plan, the Alamance-Guilford-Randolph county grouping contains four Senate districts. However, plaintiffs' counsel asked me to freeze two districts, SD-24 and SD-28, from the 2017 Senate Plan and to determine whether a majority African-American district satisfying the five aforementioned criteria could be drawn in the remaining non-frozen areas within this county grouping.

I determined that it is not possible to do so because there are mathematically not enough African-Americans in the non-frozen portions of the Alamance-Guilford-Randolph county grouping to form a majority-African-American Senate district that complies with the $\pm 5\%$ equal population threshold requirement. To arrive at this answer, I simply calculated whether or not a majority-African-American district could be created using census block boundaries in the non-frozen portions of the county grouping while complying with the equal population threshold requirement and ignoring all other districting criteria, such as geographic contiguity and compactness.

Specifically, I first calculated that the non-frozen portions of this county grouping have a total population of 386,069. Each of the two Senate districts must therefore contain a population no lower than 185,824 and no higher than 200,245, in order to comply with the $\pm 5\%$ equal population threshold requirement. Next, to calculate whether creating a majority-African-American district is numerically possible, I identified the most heavily-African-American census blocks within the non-frozen portions of the county grouping. I iteratively assigned the most heavily-African-American unassigned census blocks to one district. These census blocks were assigned to the district regardless of whether doing so would violate geographic contiguity and decrease the district's Reock and Polsby-Popper compactness scores. This iterative process of assigning the most heavily-African-American census blocks continued until the district's population had just surpassed the 185,824 minimum Senate district population for the non-frozen portions of the county grouping. This process resulted in a population-compliant Senate district whose African-American CVAP is only 34.06%. Hence, I concluded that, even if one were to ignore districting criteria such as geographic contiguity and compactness, it is mathematically impossible to form a majority-African-American Senate district in the non-frozen portions of the Alamance-Guilford-Randolph county grouping.

The Davie-Forsyth Senate Plan County Grouping: In the 2017 Senate Plan, the Davie-Forsyth county grouping contains two Senate districts. Plaintiffs' counsel asked me to determine whether a majority African-American district satisfying the five aforementioned criteria could be drawn in this county grouping.

I determined that it is not possible to do so because there are mathematically not enough African-Americans in the Davie-Forsyth county grouping to form a majority-African-American Senate district that complies with the $\pm 5\%$ equal population threshold requirement. To arrive at this answer, I simply calculated whether or not a majority-African-American district could be created in the county grouping using census block boundaries while complying with the equal population threshold requirement and ignoring all other districting criteria, such as geographic contiguity and compactness.

Specifically, I first calculated that this county grouping has a total population of 391,910. Each of the two Senate districts must therefore contain a population no lower than 191,665 and no higher than 200,245, in order to comply with the $\pm 5\%$ equal population threshold requirement. Next, to calculate whether creating a majority-African-American district is numerically possible, I identified the most heavily-African-American census blocks within the county grouping. I iteratively assigned the most heavily-African-American unassigned census blocks to one district. These census blocks were assigned to the district regardless of whether doing so would violate geographic contiguity and decrease the district's Reock and Polsby-Popper compactness scores. This iterative process of assigning the most heavily-African-American census blocks continued until the district's population had just surpassed the 191,665 minimum Senate district population for the county grouping. This process resulted in a population-compliant Senate district whose African-American CVAP is only 45.55%.

Hence, I concluded that, even if one were to ignore districting criteria such as geographic contiguity and compactness, it is mathematically impossible to form a majority-African-American Senate district in the Davie-Forsyth county grouping.

The Bladen-Brunswick-New Hanover-Pender Senate Plan County Grouping: In the 2017 Senate Plan, the Bladen-Brunswick-New Hanover-Pender county grouping contains two Senate districts. Plaintiffs' counsel asked me to determine whether a majority African-American district satisfying the five aforementioned criteria could be drawn in this county grouping.

I determined that it is not possible to do so because there are mathematically not enough African-Americans in the Bladen-Brunswick-New Hanover-Pender county grouping to form a majority-African-American Senate district that complies with the $\pm 5\%$ equal population threshold requirement. To arrive at this answer, I simply calculated whether or not a majority-African-American district could be created in the county grouping using census block boundaries while complying with the equal population threshold requirement and ignoring all other districting criteria, such as geographic contiguity and compactness.

Specifically, I first calculated that this county grouping has a total population of 397,505. Each of the two Senate districts must therefore contain a population no lower than 197,260 and no higher than 200,245, in order to comply with the $\pm 5\%$ equal population threshold requirement. Next, to calculate whether creating a majority-African-American district is numerically possible, I identified the most heavily-African-American census blocks within the county grouping. I iteratively assigned the most heavily-African-American unassigned census blocks to one district. These census blocks were assigned to the district regardless of whether doing so would violate geographic contiguity and decrease the district's Reock and Polsby-Popper compactness scores. This iterative process of assigning the most heavily-African-American census blocks continued until the district's population had just surpassed the 197,260 minimum Senate district population for the county grouping. This process resulted in a population-compliant Senate district whose African-American CVAP is only 28.11%.

Hence, I concluded that, even if one were to ignore districting criteria such as geographic contiguity and compactness, it is mathematically impossible to form a majority-African-American Senate district in the Bladen-Brunswick-New Hanover-Pender county grouping.

The Buncombe-Henderson-Transylvania Senate Plan County Grouping: In the 2017 Senate Plan, the Buncombe-Henderson-Transylvania county grouping contains two Senate districts. Plaintiffs' counsel asked me to determine whether a majority African-American district satisfying the five aforementioned criteria could be drawn in this county grouping.

I determined that it is not possible to do so because there are mathematically not enough African-Americans in the Buncombe-Henderson-Transylvania county grouping to form a majority-African-American Senate district that complies with the $\pm 5\%$ equal population threshold requirement. To arrive at this answer, I simply calculated whether or not a majority-African-American district could be created using census block boundaries in the county grouping while complying with the equal population threshold requirement and ignoring all other districting criteria, such as geographic contiguity and compactness.

Specifically, I first calculated that this county grouping has a total population of 378,148. Each of the two Senate districts must therefore contain a population no lower than 181,174 and no higher than 196,974, in order to comply with the $\pm 5\%$ equal population threshold requirement. Next, to calculate whether creating a majority-African-American district is numerically possible, I identified the most heavily-African-American census blocks within the county grouping. I iteratively assigned the most heavily-African-American unassigned census blocks to one district. These census blocks were assigned to the district regardless of whether doing so would violate geographic contiguity and decrease the district's Reock and Polsby-Popper compactness scores. This iterative process of assigning the most heavily-African-American census blocks continued until the district's population had just surpassed the 181,174 minimum Senate district population for the county grouping. This process resulted in a population-compliant Senate district whose African-American CVAP is only 10.47%.

Hence, I concluded that, even if one were to ignore districting criteria such as geographic contiguity and compactness, it is mathematically impossible to form a majority-African-American Senate district in the Buncombe-Henderson-Transylvania county grouping.

The Duplin-Harnett-Johnston-Lee-Nash-Sampson Senate Plan County Grouping: In the 2017 Senate Plan, the Duplin-Harnett-Johnston-Lee-Nash-Sampson county grouping contains three Senate districts. Plaintiffs' counsel asked me to determine whether a majority African-American district satisfying the five aforementioned criteria could be drawn in this county grouping.

I determined that it is not possible to do so because there are mathematically not enough African-Americans in the Duplin-Harnett-Johnston-Lee-Nash-Sampson county grouping to form a majority-African-American Senate district that complies with the $\pm 5\%$ equal population threshold requirement. To arrive at this answer, I simply calculated whether or not a majority-African-American district could be created using census block boundaries in the county grouping while complying with the equal population threshold requirement and ignoring all other districting criteria, such as geographic contiguity and compactness.

Specifically, I first calculated that this county grouping has a total population of 559,198. Each of the three Senate districts must therefore contain a population no lower than 181,174 and no higher than 196,850, in order to comply with the $\pm 5\%$ equal population threshold requirement. Next, to calculate whether creating a majority-African-American district is numerically possible, I identified the most heavily-African-American census blocks within the county grouping. I iteratively assigned the most heavily-African-American unassigned census blocks to one district. These census blocks were assigned to the district regardless of whether doing so would violate geographic contiguity and decrease the district's Reock and Polsby-Popper compactness scores. This iterative process of assigning the most heavily-African-American census blocks continued until the district's population had just surpassed the 181,174 minimum Senate district population for the county grouping. This process resulted in a population-compliant Senate district whose African-American CVAP is only 47.48%.

Hence, I concluded that, even if one were to ignore districting criteria such as geographic contiguity and compactness, it is mathematically impossible to form a majority-African-American Senate district in the Duplin-Harnett-Johnston-Lee-Nash-Sampson county grouping.

The Alamance House Plan County Grouping: In the 2017 House Plan, the Alamance county grouping contains two House districts. Plaintiffs' counsel asked me to determine whether a majority African-American district satisfying the five aforementioned criteria could be drawn in this county grouping.

I determined that it is not possible to do so because there are mathematically not enough African-Americans in the Alamance county grouping to form a majority-African-American House district that complies with the $\pm 5\%$ equal population threshold requirement. To arrive at this answer, I simply calculated whether or not a majority-African-American district could be created using census block boundaries in the county grouping while complying with the equal population threshold requirement and ignoring all other districting criteria, such as geographic contiguity and compactness.

Specifically, I first calculated that this county grouping has a total population of 151,131. Each of the two House districts must therefore contain a population no lower than 75,490 and no higher than 75,641, in order to comply with the $\pm 5\%$ equal population threshold requirement. Next, to calculate whether creating a majority-African-American district is numerically possible, I identified the most heavily-African-American census blocks within the county grouping. I iteratively assigned the most heavily-African-American unassigned census blocks to one district. These census blocks were assigned to the district regardless of whether doing so would violate geographic contiguity and decrease the district's Reock and Polsby-Popper compactness scores. This iterative process of assigning the most heavily-African-American census blocks continued until the district's population had just surpassed the 75,490 minimum House district population for the county grouping. This process resulted in a population-compliant House district whose African-American CVAP is only 35.83%.

Hence, I concluded that, even if one were to ignore districting criteria such as geographic contiguity and compactness, it is mathematically impossible to form a majority-African-American House district in the Alamance county grouping.

The Anson-Union House Plan County Grouping: In the 2017 House Plan, the Anson-Union county grouping contains three House districts. Plaintiffs' counsel asked me to determine whether a majority African-American district satisfying the five aforementioned criteria could be drawn in this county grouping.

I determined that it is not possible to do so because there are mathematically not enough African-Americans in the Anson-Union county grouping to form a majority-African-American House district that complies with the $\pm 5\%$ equal population threshold requirement. To arrive at this answer, I simply calculated whether or not a majority-African-American district could be created using census block boundaries in the county grouping while complying with the equal population threshold requirement and ignoring all other districting criteria, such as geographic contiguity and compactness.

Specifically, I first calculated that this county grouping has a total population of 228,240. Each of the three House districts must therefore contain a population no lower than 75,490 and no higher than 77,260, in order to comply with the $\pm 5\%$ equal population threshold requirement. Next, to calculate whether creating a majority-African-American district is numerically possible, I identified the most heavily-African-American census blocks within the county grouping. I iteratively assigned the most heavily-African-American unassigned census blocks to one district. These census blocks were assigned to the district regardless of whether doing so would violate geographic contiguity and decrease the district's Reock and Polsby-Popper compactness scores. This iterative process of assigning the most heavily-African-American census blocks continued until the district's population had just surpassed the 75,490 minimum House district population for the county grouping. This process resulted in a population-compliant House district whose African-American CVAP is only 37.63%.

Hence, I concluded that, even if one were to ignore districting criteria such as geographic contiguity and compactness, it is mathematically impossible to form a majority-African-American House district in the Anson-Union county grouping.

The Brunswick-New Hanover House Plan County Grouping: In the 2017 House Plan, the Brunswick-New Hanover county grouping contains four House districts. Plaintiffs' counsel asked me to determine whether a majority African-American district satisfying the five aforementioned criteria could be drawn in this county grouping.

I determined that it is not possible to do so because there are mathematically not enough African-Americans in the Brunswick-New Hanover county grouping to form a majority-African-American House district that complies with the $\pm 5\%$ equal population threshold requirement. To arrive at this answer, I simply calculated whether or not a majority-African-American district could be created using census block boundaries in the county grouping while complying with the equal population threshold requirement and ignoring all other districting criteria, such as geographic contiguity and compactness.

Specifically, I first calculated that this county grouping has a total population of 310,098. Each of the four House districts must therefore contain a population no lower than 75,490 and no higher than 83,435, in order to comply with the $\pm 5\%$ equal population threshold requirement. Next, to calculate whether creating a majority-African-American district is numerically possible, I identified the most heavily-African-American census blocks within the county grouping. I iteratively assigned the most heavily-African-American unassigned census blocks to one district. These census blocks were assigned to the district regardless of whether doing so would violate geographic contiguity and decrease the district's Reock and Polsby-Popper compactness scores. This iterative process of assigning the most heavily-African-American census blocks continued until the district's population had just surpassed the 75,490 minimum House district population for the county grouping. This process resulted in a population-compliant House district whose African-American CVAP is only 35.7%.

Hence, I concluded that, even if one were to ignore districting criteria such as geographic contiguity and compactness, it is mathematically impossible to form a majority-African-American House district in the Brunswick-New Hanover county grouping.

The Buncombe House Plan County Grouping: In the 2017 House Plan, the Buncombe county grouping contains three House districts. Plaintiffs' counsel asked me to determine whether a majority African-American district satisfying the five aforementioned criteria could be drawn in this county grouping.

I determined that it is not possible to do so because there are mathematically not enough African-Americans in the Buncombe county grouping to form a majority-African-American House district that complies with the $\pm 5\%$ equal population threshold requirement. To arrive at this answer, I simply calculated whether or not a majority-African-American district could be created using census block boundaries in the county grouping while complying with the equal population threshold requirement and ignoring all other districting criteria, such as geographic contiguity and compactness.

Specifically, I first calculated that this county grouping has a total population of 238,318. Each of the three House districts must therefore contain a population no lower than 75,490 and no higher than 83,435, in order to comply with the $\pm 5\%$ equal population threshold requirement. Next, to calculate whether creating a majority-African-American district is numerically possible, I identified the most heavily-African-American census blocks within the county grouping. I iteratively assigned the most heavily-African-American unassigned census blocks to one district. These census blocks were assigned to the district regardless of whether doing so would violate geographic contiguity and decrease the district's Reock and Polsby-Popper compactness scores. This iterative process of assigning the most heavily-African-American census blocks continued until the district's population had just surpassed the 75,490 minimum House district population for the county grouping. This process resulted in a population-compliant House district whose African-American CVAP is only 16.81%.

Hence, I concluded that, even if one were to ignore districting criteria such as geographic contiguity and compactness, it is mathematically impossible to form a majority-African-American House district in the Buncombe county grouping.

The Cabarrus-Davie-Montgomery-Richmond-Rowan-Stanly House Plan County

Grouping: In the 2017 House Plan, the Cabarrus-Davie-Montgomery-Richmond-Rowan-Stanly county grouping contains six House districts. However, plaintiffs' counsel asked me to freeze one district, HD-66, from the 2017 House Plan and to determine whether a majority African-American district satisfying the five aforementioned criteria could be drawn in the remaining non-frozen areas within this county grouping.

I determined that it is not possible to do so because there are mathematically not enough African-Americans in the non-frozen portions of the Cabarrus-Davie-Montgomery-Richmond-Rowan-Stanly county grouping to form a majority-African-American House district that complies with the $\pm 5\%$ equal population threshold requirement. To arrive at this answer, I simply calculated whether or not a majority-African-American district could be created using census block boundaries in the non-frozen portions of the county grouping while complying with the equal population threshold requirement and ignoring all other districting criteria, such as geographic contiguity and compactness.

Specifically, I first calculated that the non-frozen portions of this county grouping have a total population of 409,669. Each of the five House districts must therefore contain a population no lower than 75,929 and no higher than 83,435, in order to comply with the $\pm 5\%$ equal population threshold requirement. Next, to calculate whether creating a majority-African-American district is numerically possible, I identified the most heavily-African-American census blocks within the non-frozen portions of the county grouping. I iteratively assigned the most heavily-African-American unassigned census blocks to one district. These census blocks were assigned to the district regardless of whether doing so would violate geographic contiguity and decrease the district's Reock and Polsby-Popper compactness scores. This iterative process of assigning the most heavily-African-American census blocks continued until the district's population had just surpassed the 75,929 minimum House district population for the non-frozen portions of the county grouping. This process resulted in a population-compliant House district whose African-American CVAP is only 43.84%.

Hence, I concluded that, even if one were to ignore districting criteria such as geographic contiguity and compactness, it is mathematically impossible to form a majority-African-American House district in the non-frozen portions of the Cabarrus-Davie-Montgomery-Richmond-Rowan-Stanly county grouping.

The Cleveland-Gaston House Plan County Grouping: In the 2017 House Plan, the Cleveland-Gaston county grouping contains four House districts. Plaintiffs' counsel asked me to determine whether a majority African-American district satisfying the five aforementioned criteria could be drawn in this county grouping.

I determined that it is not possible to do so because there are mathematically not enough African-Americans in the Cleveland-Gaston county grouping to form a majority-African-American House district that complies with the $\pm 5\%$ equal population threshold requirement. To arrive at this answer, I simply calculated whether or not a majority-African-American district could be created using census block boundaries in the county grouping while complying with the equal population threshold requirement and ignoring all other districting criteria, such as geographic contiguity and compactness.

Specifically, I first calculated that this county grouping has a total population of 304,164. Each of the four House districts must therefore contain a population no lower than 75,490 and no higher than 77,694, in order to comply with the $\pm 5\%$ equal population threshold requirement. Next, to calculate whether creating a majority-African-American district is numerically possible, I identified the most heavily-African-American census blocks within the county grouping. I iteratively assigned the most heavily-African-American unassigned census blocks to one district. These census blocks were assigned to the district regardless of whether doing so would violate geographic contiguity and decrease the district's Reock and Polsby-Popper compactness scores. This iterative process of assigning the most heavily-African-American census blocks continued until the district's population had just surpassed the 75,490 minimum House district population for the county grouping. This process resulted in a population-compliant House district whose African-American CVAP is only 43.63%.

Hence, I concluded that, even if one were to ignore districting criteria such as geographic contiguity and compactness, it is mathematically impossible to form a majority-African-American House district in the Cleveland-Gaston county grouping.

The Columbus-Pender-Robeson House Plan County Grouping: In the 2017 House Plan, the Columbus-Pender-Robeson county grouping contains three House districts. Plaintiffs' counsel asked me to determine whether a majority African-American district satisfying the five aforementioned criteria could be drawn in this county grouping.

I determined that it is not possible to do so because there are mathematically not enough African-Americans in the Columbus-Pender-Robeson county grouping to form a majority-African-American House district that complies with the $\pm 5\%$ equal population threshold requirement. To arrive at this answer, I simply calculated whether or not a majority-African-American district could be created using census block boundaries in the county grouping while complying with the equal population threshold requirement and ignoring all other districting criteria, such as geographic contiguity and compactness.

Specifically, I first calculated that this county grouping has a total population of 244,483. Each of the three House districts must therefore contain a population no lower than 77,613 and no higher than 83,435, in order to comply with the $\pm 5\%$ equal population threshold requirement. Next, to calculate whether creating a majority-African-American district is numerically possible, I identified the most heavily-African-American census blocks within the county grouping. I iteratively assigned the most heavily-African-American unassigned census blocks to one district. These census blocks were assigned to the district regardless of whether doing so would violate geographic contiguity and decrease the district's Reock and Polsby-Popper compactness scores. This iterative process of assigning the most heavily-African-American census blocks continued until the district's population had just surpassed the 77,613 minimum House district population for the county grouping. This process resulted in a population-compliant, non-contiguous House district whose African-American CVAP is only 49.34%.

When using VAP estimates from the Decennial Census rather than CVAP, I determined that it is possible to create a non-contiguous district in this county grouping with an African-American VAP ("BVAP") above 50%, but it is not possible to create a contiguous district in this grouping with a BVAP above 50%. I found the maximum BVAP possible for a contiguous district in this grouping to be approximately 44.2%.

The Cumberland House Plan County Grouping: In the 2017 House Plan, the Cumberland county grouping contains four House districts. Plaintiffs' counsel asked me to determine whether three majority African-American districts satisfying the five aforementioned criteria could be drawn in this county grouping.

I determined that it is not possible to do so because there are mathematically not enough African-Americans in the Cumberland county grouping to form three majority-African-American House districts that comply with the $\pm 5\%$ equal population threshold requirement. To arrive at this answer, I simply calculated whether or not three majority-African-American districts could be created using census block boundaries in the county grouping while complying with the equal population threshold requirement and ignoring all other districting criteria, such as geographic contiguity and compactness.

Specifically, I first calculated that this county grouping has a total population of 319,431. Each of the four House districts must therefore contain a population no lower than 75,490 and no higher than 83,435, in order to comply with the $\pm 5\%$ equal population threshold requirement. Next, to calculate whether creating three majority-African-American districts is numerically possible, I identified the most heavily-African-American census blocks within the county grouping. I iteratively assigned the most heavily-African-American unassigned census block to one group containing enough population to fill three districts in Cumberland County. These census blocks were assigned to this three-district group regardless of whether doing so would violate geographic contiguity and decrease the district's Reock and Polsby-Popper compactness scores. This iterative process of assigning the most heavily-African-American census blocks continued until the three-district group's population had just surpassed 235,996, which is the minimum combined population for any three districts in this county grouping. This process resulted in a three-district group whose African-American CVAP is only 45.05%. Having constructed this three-district group with the minimum necessary population, we can logically infer that it would not be possible for the least-African-American among these three districts to have an African-American CVAP of higher than 45.05%.

Therefore, I conclude that, even if one were to ignore districting criteria such as geographic contiguity and compactness, it is mathematically impossible to form three majority-African-American House districts in the Cumberland county grouping.

The Duplin-Onslow House Plan County Grouping: In the 2017 House Plan, the Duplin-Onslow county grouping contains three House districts. Plaintiffs' counsel asked me to determine whether a majority African-American district satisfying the five aforementioned criteria could be drawn in this county grouping.

I determined that it is not possible to do so because there are mathematically not enough African-Americans in the Duplin-Onslow county grouping to form a majority-African-American House district that complies with the $\pm 5\%$ equal population threshold requirement. To arrive at this answer, I simply calculated whether or not a majority-African-American district could be created using census block boundaries in the county grouping while complying with the equal population threshold requirement and ignoring all other districting criteria, such as geographic contiguity and compactness.

Specifically, I first calculated that this county grouping has a total population of 236,277. Each of the three House districts must therefore contain a population no lower than 75,490 and no higher than 83,435, in order to comply with the $\pm 5\%$ equal population threshold requirement. Next, to calculate whether creating a majority-African-American district is numerically possible, I identified the most heavily-African-American census blocks within the county grouping. I iteratively assigned the most heavily-African-American unassigned census blocks to one district. These census blocks were assigned to the district regardless of whether doing so would violate geographic contiguity and decrease the district's Reock and Polsby-Popper compactness scores. This iterative process of assigning the most heavily-African-American census blocks continued until the district's population had just surpassed the 75,490 minimum House district population for the county grouping. This process resulted in a population-compliant House district whose African-American CVAP is only 37.61%.

Hence, I concluded that, even if one were to ignore districting criteria such as geographic contiguity and compactness, it is mathematically impossible to form a majority-African-American House district in the Duplin-Onslow county grouping.

The Forsyth-Yadkin House Plan County Grouping: In the 2017 House Plan, the Forsyth-Yadkin county grouping contains five House districts. Plaintiffs' counsel asked me to determine whether two majority African-American districts satisfying the five aforementioned criteria could be drawn in this county grouping. I found that it is not possible to do so.

In analyzing this county grouping, I first found that African-Americans are sufficiently numerous to comprise a slight majority in two House districts if geographic contiguity were not required. However, in order to determine whether two contiguous majority-African-American districts could be drawn, I conducted a large number of computer simulations in which district boundaries were drawn within the Forsyth-Yadkin in a race-conscious manner. Specifically, the simulation algorithm attempted to intentionally create a 50% African-American CVAP district while otherwise prioritizing geographic compactness and not violating the geographic contiguity and 5% population deviation requirements. The algorithm used census blocks as the building blocks in order to produce computer-simulated plans containing a majority-African-American House district. The algorithm proceeded by reassigning census blocks from one district to the other in an intentional effort to increase the African-American CVAP of the more heavily African-American district; this redrawing of the boundaries continued until one of the two districts in the Forsyth-Yadkin grouping achieved at least a 50% African-American CVAP. Beyond this racial goal, the algorithm also prioritized geographic compactness while adhering to the contiguity and population deviation requirements.

Using this simulation algorithm, I determined that it is not possible to create two majority African-American districts satisfying the five aforementioned criteria in the Forsyth-Yadkin county grouping. Specifically, I found it was only possible to produce two districts with approximately a 49% African-American CVAP. Even when this was possible, these two heavily African-American districts had Polsby-Popper scores of well under 0.05. Thus, I conclude that it is not possible to create two majority African-American districts satisfying the five aforementioned criteria in this county grouping. Furthermore, I found that using VAP rather than CVAP counts in Forsyth-Yadkin did not alter this overall conclusion.

The Franklin-Nash House Plan County Grouping: In the 2017 House Plan, the Franklin-Nash county grouping contains two House districts. Plaintiffs' counsel asked me to determine whether a majority African-American district satisfying the five aforementioned criteria could be drawn in this county grouping. I found that it is possible to do so.

To analyze this question, I conducted a large number of computer simulations in which district boundaries were drawn within this county grouping in a race-conscious manner. Specifically, the simulation algorithm attempted to intentionally create a 50% African-American CVAP district while otherwise prioritizing geographic compactness and not violating the geographic contiguity and 5% population deviation requirements. The algorithm used census blocks as the building blocks in order to produce computer-simulated plans containing a majority-African-American House district. The algorithm proceeded by reassigning census blocks from one district to the other in an intentional effort to increase the African-American CVAP of the more heavily African-American district; this redrawing of the boundaries continued until one of the two districts in the Franklin-Nash grouping achieved at least a 50% African-American CVAP. Beyond this racial goal, the algorithm also prioritized geographic compactness while adhering to the contiguity and population deviation requirements.

Using this simulation algorithm, I determined that it is possible to create a majority African-American district satisfying the five aforementioned criteria in the Franklin-Nash county grouping. Specifically, I found that it is possible to create a single, geographically contiguous House district containing a 50.0% African-American CVAP, a Reock score of 0.2944, a Polsby-Popper score of 0.0533, and a total population of 75,777. Thus, this computer-simulated district demonstrates that it is possible in the Franklin-Nash county grouping to produce a single majority-African-American district satisfying the five aforementioned criteria.

This finding is especially noteworthy because in my June 7, 2019 expert report, I had concluded it was not possible to create a 50% BVAP House district in Franklin-Nash with a Polsby-Popper score of at least 0.05. In this report, by contrast, I used CVAP numbers to measure African-American population, which led me to a different conclusion. In the Franklin-Nash county grouping, the African-American share of the 2013-2017 CVAP is higher than the African-American share of the VAP in the 2010 Census. As a result, it is possible to form a majority African-American district in this county grouping when using the updated CVAP numbers instead of the 2010 Census VAP numbers.

The Lenoir-Pitt House Plan County Grouping: In the 2017 House Plan, the Lenoir-Pitt county grouping contains three House districts. Plaintiffs' counsel asked me to determine whether a majority African-American district satisfying the five aforementioned criteria could be drawn in this county grouping. I found that it is possible to do so.

To analyze this question, I conducted a large number of computer simulations in which district boundaries were drawn within this county grouping in a race-conscious manner. Specifically, the simulation algorithm attempted to intentionally create a 50% African-American CVAP district while otherwise prioritizing geographic compactness and not violating the geographic contiguity and 5% population deviation requirements. The algorithm used census blocks as the building blocks in order to produce computer-simulated plans containing a majority-African-American House district. The algorithm proceeded by reassigning census blocks from one district to the other in an intentional effort to increase the African-American CVAP of the more heavily African-American district; this redrawing of the boundaries continued until one of the two districts in the Lenoir-Pitt grouping achieved at least a 50% African-American CVAP. Beyond this racial goal, the algorithm also prioritized geographic compactness while adhering to the contiguity and population deviation requirements.

Using this simulation algorithm, I determined that it is possible to create a majority African-American district satisfying the five aforementioned criteria in the Lenoir-Pitt county grouping. Specifically, the simulation algorithm created one district containing a total population of 75,630 and an African-American CVAP of 50.23%. This district is geographically contiguous; it has a Reock score of 0.36 and a Polsby-Popper score of 0.34. Thus, this computer-simulated district demonstrates that it is possible in the Lenoir-Pitt county grouping to produce a single majority-African-American district satisfying the five aforementioned criteria.

Moreover, I also determined that if one were to use VAP numbers instead of CVAP numbers to measure African-American population, it would be similarly possible to construct a majority African-American VAP district in the Lenoir-Pitt county grouping satisfying the five aforementioned criteria.

I declare under penalty of perjury under the laws of the United States that the foregoing is true and correct to the best of my knowledge.

This 17th day of September, 2019.

A handwritten signature in black ink, appearing to read 'J. Chen', with a horizontal line extending from the end of the signature.

Jowei Chen

EXHIBIT B

Providing Black Voters with an Opportunity to Elect Candidates of Choice to the North Carolina State Legislature: A Jurisdiction-Specific, Functional Analysis of Select House and Senate County Grouping

Lisa Handley

September 17, 2019

I. Scope of Report

I was asked by counsel for Plaintiffs in this matter to conduct an analysis of voting patterns in select state House and Senate county groupings in North Carolina and, if voting in an election contest is racially polarized, to calculate the percent black voting age population necessary to provide black voters with an opportunity to elect their candidate of choice. In one county (Robeson County), I also performed these calculations for the Native American population.

The district-specific, functional analysis I performed is specific to those counties and districts presented in this report. Particularly given the differences in voting patterns that exist across North Carolina, my analysis cannot be extrapolated to other counties and districts not analyzed in this report, including districts that currently have African American representatives that I did not evaluate.

II. Professional Experience

I have over thirty years of experience as a voting rights and redistricting expert. I have advised scores of jurisdictions and other clients on minority voting rights and redistricting-related issues and have served as an expert in more than 25 voting rights cases. My clients have included state and local jurisdictions, the U.S. Department of Justice, national civil rights organizations, and such international organizations as the United Nations.

I have been actively involved in researching, writing and teaching on subjects relating to voting rights, including minority representation, electoral system design and redistricting. I co-authored a book, *Minority Representation and the Quest for Voting Equality* (Cambridge University Press, 1992), and co-edited a volume, *Redistricting in Comparative Perspective* (Oxford University Press, 2008), on these subjects. In addition, my research on these topics has appeared in peer-reviewed journals such as *Journal of Politics*, *Legislative Studies Quarterly*,

American Politics Quarterly, *Journal of Law and Politics*, and *Law and Policy*, as well as in edited books and law reviews.

I am one of the co-authors of the 2001 *North Carolina Law Review* article, “Drawing Effective Minority Districts: A Conceptual Framework and Some Empirical Evidence,”¹ relied on by one of Defendants’ experts in this case, Dr. Jeffrey Lewis. In addition to writing this piece, I have used the approach outlined in it to conduct numerous district-specific, functional analyses both for interested jurisdictions and in the context of litigation. For example, most recently, I was asked to ascertain the percent black voting age population that would allow black voters an opportunity to elect their candidates of choice in the challenged 3rd Congressional District in Virginia,² and the 11th Congressional District in Ohio.³

I have been a principal of Frontier International Electoral Consulting since co-founding the company in 1998. Frontier IEC provides electoral assistance in transitional democracies and post-conflict countries. In addition, I am a Visiting Research Academic at Oxford Brookes University in Oxford, United Kingdom. Attached to the end of this report is a copy of my *curriculum vitae*. I am being compensated at a rate of \$300 an hour for my work in this case.

III. County Groupings and Elections Examined

Conclusions about racially polarized voting and the minority population percentage needed to elect minority-preferred candidates in the context of polarization should be drawn from as many elections as applicable and feasible. It is well-established that racial voting patterns in elections that include minority candidates are the most probative for determining if voting is racially polarized.⁴ In addition, elections for the office at issue in a lawsuit – in this

¹ Bernard Grofman, Lisa Handley and David Lublin, “Drawing Effective Minority Districts: A Conceptual Framework and Some Empirical Evidence,” *North Carolina Law Review*, volume 79 (5), June 2001.

² *Personhuballah v. Alcorn*, No. 3:13-cv-678 (E.D. Va.).

³ *Ohio A. Philip Randolph Inst. v. Householder*, No. 1:18-CV-357 (S.D. Ohio).

⁴ See, for example, *League of United Latin Am. Citizens, Council No. 4434 v. Clements*, 999 F.2d 831, 864 (5th Cir. 1993); *Nipper v. Smith*, 39 F.3d 1494, 1540 (11th Cir. 1994).

case, state House and state Senate seats – are the most relevant,⁵ both for determining if voting is usually polarized and for calculating the percent minority population needed to elect minority-preferred candidates to the office if voting is racially polarized.

I analyzed all contested state legislative general and Democratic primary election contests since 2014 that included an African American candidate in the state Senate and state House county groupings at issue in this case.⁶ I also examined all recent statewide state and federal elections – general elections and Democratic primaries – that included an African American candidate. A statewide analysis of voting patterns in two of these contests, the 2016 primary elections for Governor and Supervisor of Public Instruction, indicated that voting was not polarized – both black and white voters supported the winning white candidate.⁷ I therefore focused my analysis on the following 2016 statewide contests for each state House and Senate grouping at issue: the general elections for Lieutenant Governor and State Treasurer and the Democratic primaries for Lieutenant Governor, Attorney General, Commissioner of Labor and Treasurer. In addition, I analyzed the 2012 general elections for U.S. President and Lieutenant Governor, and the 2012 Democratic primaries for Lieutenant Governor and Commissioner of Labor. While these contests were polarized statewide, they were not necessarily polarized in every given county grouping. Some of the primary elections considered had three or more candidates; although black voters often coalesced around a single candidate in some of these contests, in other instances they did not and determining a candidate of choice was not possible.

The 13 state House groupings I examined were: (1) Alamance; (2) Anson and Union; (3) Cabarrus, Davie, Montgomery, Richmond, Rowan and Stanly; (4) Cleveland and Gaston; (5) Columbus, Pender and Robeson; (6) Cumberland; (7) Duplin and Onslow; (8) Forsyth and Yadkin; (9) Franklin and Nash; (10) Guilford; (11) Lenoir and Pitt; (12) Mecklenburg; and (13)

⁵ Courts have long held that endogenous elections are more probative in assessing minority vote dilution. Examples include *Bone Shirt V. Hazeltine* 461 F.3d 1011, 1020 (8th Cir. 2006); *Clay v. Bd. of Educ. of City of St. Louis*, 90 F.3d 1357, 1362 (8th Cir. 1996); *Magnolia Bar Ass'n, Inc. v. Lee* 994 F.2d 1143, 1149 (5th Cir. 1993); *Jenkins v. Red Clay Consol. School 25 Dist. Bd. of Educ.* 4 F.3d 1103 (3d Cir. 1993); *Citizens for a Better Gretna v. City of Gretna, La.* 834 F.2d 496, 502 (5th Cir. 1987); *Rodriguez v. Harris Cnty, Texas* 964 19 F. Supp. 2d 686, 759 (S.D. Tex. 2013).

⁶ In North Carolina, most black voters choose to vote in Democratic primaries as opposed to Republican primaries.

⁷ This report does not address the extent to which the 2016 Democratic primaries for Governor and Supervisor of Public Instruction were racially polarized in any specific county grouping.

Wake. The 5 state Senate county groupings were: (1) Alamance, Guilford and Randolph; (2) Davie and Forsyth; (3) Duplin, Harnett, Johnson, Lee, Nash and Sampson; (4) Franklin and Wake; and (5) Mecklenburg.⁸

IV. Success Rates of African American State Legislative Candidates

While African American state legislators have generally been elected from legislative districts with substantial black populations within the county groupings at issue here, these districts are usually not majority black in voting age population and in many cases are below or substantially below 40% in voting age population. Table 1 lists all state Senate districts under the 2017 Senate Plan that had a BVAP greater than 30% and encompass at least one county at issue in the remedial phase of this case. The table also shows the results of the 2018 election in each of these districts.

Table 1: State Senators Elected from Districts with Black Voting Age Populations Greater the 30% in Relevant Counties

2017 Senate Plan District	Percent Black Voting Age Population	State Senator	Race	Party	Share of two-party vote in 2018 general election	Senate County Grouping
38	48.46%	Mujtaba Mohammed	O	D	81.7%	Mecklenburg
28	43.64%	Gladys Robinson	AA	D	75.2%	Alamance-Guilford-Randolph
37	42.73%	Jeff Jackson	W	D	79.6%	Mecklenburg
21	42.15%	Ben Clark	AA	D	70.9%	Cumberland-Hoke
32	39.18%	Paul Lowe, Jr.	AA	D	72.9%	Davie-Forsyth
40	38.88%	Joyce Waddell	AA	D	75.6%	Mecklenburg
14	38.85%	Dan Blue	AA	D	73.4%	Franklin-Wake
7	33.93%	Louis Milford Pate, Jr.	W	R	53.9%	Lenoir-Wayne
5	32.94%	Don Davis	AA	D	55.3%	Greene-Pitt
19	31.69%	Kirk DeViere	W	D	50.4%	Cumberland-Hoke

If the Democratic candidate represented the candidate of choice for African Americans in each of the general elections listed in Table 1, then African Americans were able to elect the

⁸ Mecklenburg results are reported under the state House grouping but the discussion of course holds for the state Senate as well.

candidate of their choice in 9 of the 10 districts with a BVAP in excess of 30% in relevant Senate county groupings, and the majority of these successful candidates were African Americans. To be clear, Table 1 merely displays past election results; this analysis is not meant to suggest that a BVAP of 30% is a bright-line percentage that is either necessary or sufficient for African Americans to elect a candidate of their choice, either in the county groupings depicted in Table 1 or in other counties not in Table 1. Indeed, Table 1 does not include results for numerous counties across the State because those counties do not currently have state Senate districts with a BVAP above 30% or are not at issue in the remedial phase of this lawsuit. The results could differ significantly for such other counties.

Table 2 provides the same information as Table 1 for all state House districts under the 2017 House Plan that had a BVAP greater than 30% and encompass at least one county at issue in the remedial phase of this case.

Table 2: State Representative Elected from Districts with Black Voting Age Populations Greater the 30% in Relevant Counties

2017 House Plan District	Percent Black Voting Age Population	State Representative	Race	Party	Share of two-party vote in 2018 general election	House County Grouping
101	50.8%	Carolyn Logan	AA	D	78.7%	Mecklenburg
43	50.0%	Elmer Floyd	AA	D	74.1%	Cumberland
99	49.5%	Nasif Majeed	AA	D	82.4%	Mecklenburg
107	49.4%	Kelly Alexander	AA	D	100.0%	Mecklenburg
38	48.3%	Yvonne Lewis Holley	AA	D	84.1%	Wake
72	47.5%	Derwin Montgomery	AA	D	79.1%	Forsyth-Yadkin
8	44.9%	Kandie D. Smith	AA	D	64.6%	Lenoir-Pitt
33	44.2%	Rosa U. Gill	AA	D	78.7%	Wake
102	43.9%	Becky Carney	W	D	83.4%	Mecklenburg
58	42.7%	Amos Quick	AA	D	76.8%	Guilford
42	42.2%	Marvin W. Lucas	AA	D	78.1%	Cumberland
25	40.7%	James D. Gailliard	AA	D	53.3%	Franklin-Nash
61	40.3%	Mary Price Harrison	W	D	73.3%	Guilford
60	40.1%	Cecil Brockman	AA	D	69.0%	Guilford
21	39.0%	Raymond Smith Jr.	AA	D	52.6%	Bladen-Greene-Harnett-Johnston-Lee-Sampson-Wayne
88	38.4%	Mary G. Belk	W	D	75.6%	Mecklenburg
57	38.4%	Ashton Clemmons	W	D	67.6%	Guilford
106	38.0%	Carla Cunningham	AA	D	80.6%	Mecklenburg
12	37.4%	Chris Humphrey	W	R	56.1%	Lenoir-Pitt

2017 House Plan District	Percent Black Voting Age Population	State Representative	Race	Party	Share of two-party vote in 2018 general election	House County Grouping
71	36.6%	Evelyn Terry	AA	D	72.7%	Forsyth-Yadkin
39	35.5%	Darren Jackson	W	D	67.9%	Wake
100	32.1%	John Autry	W	D	70.8%	Mecklenburg
44	31.8%	Billy Richardson	W	D	56.6%	Cumberland
22	31.5%	William Brisson	W	R	43.3%	Bladen-Greene-Harnett-Johnston-Lee-Sampson-Wayne
92	30.2%	Chaz Beasley	AA	D	70.0%	Mecklenburg

As in the Senate, if the Democratic candidate represented the candidate of choice for African Americans in each of the general elections listed in Table 2, then African Americans were able to elect the candidate of their choice in 23 of the 25 districts with a BVAP in excess of 30% in relevant House county groupings, and the majority of these successful candidates were African Americans. In addition to the African American state representatives listed above, there are two elected from districts that do not have substantial black populations: Sydney Batch is elected from a 14.3% BVAP district in Wake County, and Brandon Lofton is elected from a 6.2% BVAP district in Mecklenburg County. The same clarifications apply, however, for this analysis as with the Senate. This analysis is not meant to suggest that a BVAP of 30% is a bright-line percentage that is either necessary or sufficient for African Americans to elect a candidate of their choice, either in the county groupings depicted in Table 2 or in other counties not in Table 2. As before, Table 2 does not include results for numerous counties across the State because those counties do not currently have state House districts with a BVAP above 30% or are not at issue in the remedial phase of this lawsuit, and the results could differ significantly for such other counties.

V. Analyzing Voting Patterns by Race

In addition to the above analysis, I have conducted a systematic analysis to determine what percent BVAP would be required to provide black voters the opportunity to elect their preferred candidates in state legislative as well as statewide contests in relevant county groupings. For each election analyzed, I report the participation rates of black and white voters, as well as the percentage of black and white support for the black-preferred candidate. If the

contest is polarized, with black and white voters supporting different candidates, I indicate the percentage BVAP required, given the participation rates and voting patterns of black and white voters, for the black-preferred candidate to win in the given election contest.

In this report, I discuss black and white voting behavior but in reality the analysis considers black and non-black voting behavior. While in most areas of the state, non-black voters are mostly white, this is not true of Roberson County, which has a substantial Native American population. I consider not only blacks and non-blacks, but Native Americans and non-Native Americans for this county.

The voting patterns of black and white voters must be estimated using statistical techniques because direct information about how individuals have voted is simply not available – the race of the voter is not, of course, obtainable from the ballot. I used a standard statistical technique to produce estimates, King’s ecological inference (EI).⁹ Developed by Professor Gary King in the 1990s and later refined, this statistical method utilizes the method of bounds and incorporates maximum likelihood statistics to produce estimates of voting patterns by race.¹⁰ King’s EI has been introduced and accepted in numerous district court proceedings.¹¹

The database used for this analysis matched demographic data for each election precinct – white, black and Native American VAP, based on the 2010 census – with the election results for the precinct.¹² The use of VAP data made sense in this case since participation as a product

⁹ The statistical package I used was r for the ecological regression analysis and eiCompare for r for the ecological inference analysis.

¹⁰ The following is an example of how the method of bounds works: if a given precinct has 100 voters, of which 75 are black and 25 are white, and the African American candidate received 80 votes, then at least 55 of the black voters ($80 - 25$) voted for the African American candidate and at most all 75 did. (The method of bounds is less useful for calculating estimates for white voters, as anywhere between none of the white voters and all of the white voters could have voted for the candidate.) These bounds are used when calculating EI estimates but not when using ecological regression.

¹¹ A list of cases in which King’s EI was used can be found in Justin de Benedictis-Kessner, “Evidence in Voting Rights Litigation: Producing Accurate Estimates of Racial Voting Patterns,” *Election Law Journal*, vol.14 (4), 2015. This article also discusses other statistical approaches to analyzing voting patterns by race in voting rights litigation, including homogeneous precinct analysis and ecological regression (ER).

¹² Some of the precinct VAP data could not be matched with election results. The degree to which this occurred varied by county, with some counties assigning early and absentee votes back to the election precinct and other counties not doing this. In addition, if counties combined or split election precincts for an election, these results could not be matched up to the correct demographic data.

of VAP is required to determine the percentage of black VAP necessary for the candidate of choice of black voters to win the given election.

VI. Calculating the Percent Black Voting Age Population Needed to Elect Black-Preferred Candidate

The percentage minority population needed to create a district that provides minorities with an opportunity to elect their candidates of choice varies depending on the specific location of the district – there is no single universal or statewide target that can be applied. A district-specific, functional analysis that considers the participation rates and voting patterns of whites and minorities must be conducted to determine the percentage of the minority population that is needed to provide minority voters with an opportunity to elect candidates of their choice. Relying on the estimates of black and white voting behavior produced by the racial bloc voting analysis I conducted, in each election contest that was polarized, I calculated the percent BVAP needed for the candidate of choice of African Americans to win. When voting is not racially polarized in a given election and area, we need not calculate the percent BVAP needed for the black-preferred candidate to win since black and white voters in that instance support the same candidate.

A. Equalizing Turnout

Black turnout as a percentage of BVAP is generally somewhat lower than white turnout as a percentage of WVAP in the general elections analyzed. For example, according to Table 3, below, in Alamance in the 2016 general election for Lieutenant Governor, 44.7% of blacks of voting age turned out and cast a vote, while 70.6% of whites of voting age cast a vote.¹³ Using these turnout percentages, I can calculate the percent black VAP needed to ensure that black voters

¹³ In this example, turnout actually refers to the percent of black and white VAP voting for the highest statewide office on the ticket that included an African American candidate in the general election – the race for Lieutenant Governor.

comprise at least 50 percent of the voters for this election.¹⁴ The equalizing percentage is calculated mathematically by solving the following equation:

Let
M = the proportion of the district's voting age population that is black
W = 1-M = the proportion of the district's voting age population that is white
A = the proportion of the black voting age population that turned out to vote
B = the proportion of the white voting age population that turned out to vote

Therefore,
M(A) = the proportion of the population that is black and turned out to vote (1)
(1-M)B = the proportion of total population that is white and turned out to vote (2)

To find the value of M that is needed for (1) and (2) to be equal, (1) and (2) are set as equal and we solve for M algebraically:

$$\begin{aligned}M(A) &= (1 - M)B \\M(A) &= B - M(B) \\M(A) + M(B) &= B \\M(A + B) &= B \\M &= B / (A+B)\end{aligned}$$

Thus, for the example above, $A = .447$, $B = .706$ and $M = .706 / (.447 + .706)$. Therefore, a 61.2% BVAP district would produce equalized black and white turnout in the 2016 general election in this county grouping.

The equalizing percentage for BVAP in Democratic primaries in North Carolina is much lower than in general elections. This is because most black voters choose to vote in Democratic primaries while white voters tend to divide their votes between the Democratic and Republican primaries. For example, for the same county (Alamance), black turnout as a percentage of BVAP was 14.9 and white turnout as a percentage of WVAP was 8.3.¹⁵ (See Table 3, below.) The percentage BVAP required to equalize black and white turnout in the Democratic primary in this instance is only 35.8%.

¹⁴ For a more in-depth discussion of equalizing turnout see Kimball Brace, Bernard Grofman, Lisa Handley and Richard Niemi, "Minority Voting Equality: The 65 Percent Rule in Theory and Practice," *Law and Policy*, 10 (1), January 1988.

¹⁵ Turnout in this example is actually the percent of black and white VAP voting for the highest statewide office on the ticket that included an African American candidate in the statewide Democratic primary – the race for Lieutenant Governor.

Equalizing the number of black and white voters who vote in an election would only be necessary to ensure that minority voters had the opportunity to elect their candidates of choice if white voters are rarely willing to vote for black-preferred candidates. If a sufficient percentage of white voters, consistently demonstrate a willingness to support black-preferred candidates, then the number of black voters need not equal the number of white voters who vote in a given election – white voters will “crossover” and help elect the black-preferred candidates. A district-specific, functional analysis should take into account not only differences in the turnout rates of black and white voters, but also the voting patterns of white and black voters.¹⁶

B. Incorporating Minority Cohesion and White Crossover Voting

Estimates of voting patterns by race for of the elections analyzed for this report indicate that many were not racially polarized – black voters and white voters supported the same candidates. When black and white voters support different candidates, however, close attention must be paid not only to the turnout rates of black and white voters, but to the percentage of white voters who are willing to support black-preferred candidates, as well as how cohesive black voters are in their support of these candidates. When there are very high levels of minority cohesion and consistent, sufficient white crossover voting, the district need not be majority black in composition to provide black voters with a realistic opportunity to elect their candidates of choice to office.

To illustrate this mathematically, consider a district that has 2000 persons of voting age, 50% of whom are black and 50% of whom are white. Using the estimates of black and white turnout and support for the black-preferred candidate in the 2016 general election in Alamance County for Lieutenant Governor, black turnout is lower than white turnout: 44.7% of blacks of voting age and 70.6% of whites of voting age turned out to vote. (See Table 3, below.) This means that, for our illustrative election, there will be 447 black voters and 706 white voters. As indicated by Table 3, 99.3% of the black voters supported the black-preferred candidate (Linda

¹⁶ For an in-depth discussion of this approach to creating effective minority districts, see Bernard Grofman, Lisa Handley and David Lublin, “Drawing Effective Minority Districts: A Conceptual Framework and Some Empirical Evidence,” *North Carolina Law Review*, volume 79 (5), June 2001.

Coleman) and 31.2% of the white voters supported her in this election.¹⁷ Thus, in our example, black voters will cast 444 of their 447 votes for the black-preferred candidate and their other 3 votes for the other candidates; white voters will cast 220 of their 706 votes for the black-preferred candidate and 486 votes for the other candidates. The black-preferred candidate will receive 57.6% of the vote under these conditions:

Black and White Voters	Votes for Black-Preferred Candidate	Votes for Other Candidates
Black 1000 x .447 = 447	447 x .993 = 444	447 x .007 = 3
White 1000 x .706 = <u>706</u>	706 x .312 = <u>220</u>	706 x .688 = <u>486</u>
1153	664	486

The black-preferred candidate will garner a total of 664 votes (444 from black voters and 220 from white voters), while the other candidates will receive 486 votes (3 from black voters and 486 from white voters). The black-preferred candidate will win the election with 664 of the 1153 votes cast in the contest, or 57.6% of the vote in this hypothetical 50% black VAP district. The black-preferred candidate in this election actually received only 40.5% of the vote in Alamance County because the county is slightly less than 19% black in VAP. But as the column labeled “percent of vote B-P cand would have received if district was 50% black VAP” indicates, Coleman would have received 57.6% of the vote if the BVAP was 50%. And, as the last column in Table 3 indicates, in a district with at least 37.6% BVAP, the black-preferred candidate would win.¹⁸

The Democratic primary for Lieutenant Governor in 2016 in Alamance was not racially polarized. (There were 4 candidates and thus, while Coleman received only 43% of the white vote, she was the top choice of white voters; she received 87% of the black votes cast.) However, the 2016 Democratic primary race for Attorney General was polarized in the county so this will serve as the basis for the illustrative example. (See Table 3, below.) The turnout rate for

¹⁷ The 2016 general election for Lieutenant Governor included three candidates: Dan Forest, a white Republican, Linda Coleman, an African-American Democrat, and Libertarian candidate Jacki Cole. Dan Forest won the election with 51.8% of the statewide vote.

¹⁸

Black and White Voters	Votes for Black-Preferred Candidate	Votes for Other Candidates
Black 376 x .447 = 168	168 x .993 = 167	168 x .007 = 1
White 624 x .706 = <u>441</u>	441 x .312 = <u>138</u>	441 x .688 = <u>303</u>
609	305	304

blacks was 14.4%; for whites it was 8.4%. Marcus Williams, the African American candidate, received 99.4% of the black vote and 39.0% of the white vote. However, because black turnout was so much higher than white turnout (many white voters cast ballots in the Republican primary rather than the Democratic primary), Williams would have received over 77% of the vote (176 out of 228 votes) in a 50% BVAP district:

Black and White Voters	Black-Preferred Candidate Votes	White-Preferred Candidate Votes
Black 1000 x .144 = 144	144 x .994 = 143	144 x .006 = 1
White 1000 x .084 = <u>84</u>	84 x .390 = <u>33</u>	84 x .610 = <u>67</u>
228	176	52

Williams carried Alamance County, which has a 18.9% BVAP, with 51.1% of the vote and would have won the primary in any district with at least 11.5% BVAP under these conditions.

VII. Results of Analysis

Tables 3 through 22 report the results of my racial bloc voting analysis and, if the contest is racially polarized, indicate the percentage of vote a black-preferred candidate would receive in each House and Senate grouping of interest, given the turnout rates of blacks and whites and the degree of black cohesion and white crossover voting for each election, in a 50%, 45%, 40% and 35% black VAP district. Each table considers a different state House county grouping (Tables 3-15) or state Senate county grouping (Tables 16-19). In each table, the first column indicates the relevant election, the second column indicates either the BVAP of the House or Senate district (for state legislative elections) or the BVAP of the entire counties that comprise the county grouping (for the statewide elections analyzed). The third and fourth columns then reflect the race and share of the vote received by the candidate of choice of African Americans.

Of significance, the column with the headers “black voters: B-P” and “white voters: B-P” represent my calculations of the share of black voters and white voters who supported the black-preferred candidate (i.e. the “B-P” candidate) in that election. If the numbers in these columns are both greater than 50%, it means that voting in that particular election was not racially polarized because a majority of blacks and whites both supported the candidate of choice of

African Americans. The final column calculates that percent BVAP needed for the black-preferred candidate to have won the election if that election was racially polarized.¹⁹

In addition to analyzing polarized voting across each of the county groupings at issue, I also analyzed racially polarized voting within specific individual counties, including Forsyth County (Table 20) and Pitt County (Table 21). Moreover, I conducted a racial polarization analysis for Robeson County, but for Native Americans rather than African Americans (Table 22). For this analysis, I divided all voters into Native Americans and non-Native Americans and then analyzed whether and to what extent voting was polarized between these two groups.

VIII. Conclusion

My analysis of voting patterns by race in recent statewide and state legislative contests in select North Carolina state House and Senate county groupings indicates that a number of election contests were not racially polarized. When the election contest was polarized, I used the estimates of black and white turnout, and black and white votes for the black-preferred candidate to calculate the percent BVAP required for black voters to elect their preferred candidate in that election. The black percentage needed varies both by grouping – hence the importance of conducting a district-specific analysis – and the contest considered. In some county groupings such as Guilford, Cumberland, Forsyth-Yadkin, and Mecklenburg in the House, as well as Franklin-Wake, Davie-Forsyth, and Mecklenburg in the Senate, there are many elections that were not racially polarized because a majority of whites supported the candidate of choice of African Americans. Substantially greater white bloc voting was found in other county groupings.

¹⁹ The column titled “actual vote of B-P candidate” represent the raw percentage of the vote received by that candidate as reported by the State Board of Elections, and not the share of the two-party vote.

Table 3

House Grouping: Alamance	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 64	18.5	AA	42.2	24.5	96.7	3.3	55.7	38.2	61.8	56.1	53.7	51.5	49.4	36.5
2016														
2016 Lt Governor	18.9	AA	40.5	44.7	99.3	0.7	70.6	31.2	68.8	57.6	54.4	51.4	48.5	37.6
2016 Treasurer	18.9	AA	43.2	43.2	99.9	0.1	68.1	34.5	65.5	59.9	56.8	53.9	51.2	32.9
2014														
none														
2012														
2012 President	18.9	AA	42.7	46.0	99.5	0.5	67.4	33.1	66.9	60.0	56.9	53.9	50.9	33.3
2012 Lt Governor	18.9	AA	43.3	45.3	99.9	0.1	65.2	33.9	66.1	61.0	57.8	54.8	51.9	31.7
Democratic primaries														
2018														
State House 64	18.5	AA	46.8	5.4	87.8	12.2	3.5	35.9	64.1	67.4	64.9	62.2	59.5	19.5
2016														
2016 Lt Governor	18.9	AA	52.3	14.9	87.0	13.0	8.3	43.0	57.0	71.3	69.2	67.0	64.6	not polarized, 1st choice same
2016 Attn General	18.9	AA	51.1	14.4	99.4	0.6	8.4	39.0	61.0	77.1	74.3	71.2	68.0	11.5
2016 Comm of Labor	18.9	AA	50.3	14.1	83.6	16.4	8.4	40.7	59.3	67.6	65.5	63.4	61.1	14.2
2016 Treasurer	18.9	AA	57.4	14.7	60.2	39.8	8.4	54.7	45.3	58.2	57.9	57.7	57.4	not polarized
2014														
none														
2012														
2012 Lt Governor	18.9	AA	49.2	10.3	52.8	47.2	9.7	48.6	51.4	50.8	50.6	50.3	50.1	32.0
2012 Comm of Labor	18.9	AA	33.5	10.3	58.6	41.4	9.1	26.5	73.5	43.5	41.9	40.3	38.7	70.7

Table 4

House Grouping: Anson and Union	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
none														
2016														
2016 Lt Governor	16.5	AA	32.2	55.8	100.0	0.0	75.1	23.1	76.9	55.9	52.2	48.6	45.1	42.0
2016 Treasurer	16.5	AA	34.6	54.6	99.6	0.4	73.4	27.3	72.7	58.1	54.7	51.3	48.0	38.1
2014														
none														
2012														
2012 President	16.5	AA	37.4	34.7	98.3	1.7	70.6	30.0	70.0	52.5	49.6	46.9	44.3	45.7
2012 Lt Governor	16.5	AA	39.1	33.3	99.0	1.0	68.0	32.0	68.0	54.0	51.2	48.5	46.0	42.9
Democratic primaries														
2018														
none														
2016														
2016 Lt Governor	16.5	AA	40.8	23.0	87.4	12.6	6.2	10.6	89.4	71.1	68.4	65.3	61.8	22.1
2016 Attn General	16.5	AA	58.3	21.3	92.7	7.3	6.1	48.1	51.9	82.8	81.1	79.3	77.2	1.3
2016 Comm of Labor	16.5	AA	55.3	22.9	63.5	36.5	5.9	49.7	50.3	60.7	60.2	59.7	59.0	0.6
2016 Treasurer	16.5	AA	56.5	19.4	84.3	15.7	5.9	47.6	52.4	75.7	74.4	72.8	71.1	2.1
2014														
none														
2012														
2012 Lt Governor	16.5	AA	47.2	25.0	63.2	36.8	4.6	34.7	65.3	58.8	58.0	57.0	55.9	17.6
2012 Comm of Labor	16.5	AA	37.2	25.0	51.7	48.3	4.1	26.9	73.1	48.2	47.6	46.8	45.9	69.0

Table 5

House Grouping: Cabarrus, Davie, Montgomery, Richmond, Rowan, and Stanly	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B- P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 82	14.1	AA	47.3	34.8	99.9	0.1	64.2	38.9	61.1	60.3	57.6	55.1	52.7	29.1
2016														
2016 Lt Governor	15.5	AA	32.9	34.7	100.0	0.0	67.7	26.7	73.3	51.5	48.4	45.4	42.6	47.6
2016 Treasurer	15.5	AA	36.1	36.1	99.5	0.5	65.7	29.2	70.8	54.1	51.0	48.0	45.3	43.3
2014														
none														
2012														
2012 President	15.5	AA	37.6	58.9	99.6	0.4	62.4	28.1	71.9	62.8	59.3	55.7	52.2	31.9
2012 Lt Governor	15.5	AA	39.1	55.0	97.8	2.2	60.3	30.6	69.4	62.7	59.3	56.0	52.7	30.8
Democratic primaries														
2018														
none														
2016														
2016 Lt Governor	15.5	AA	45.2	14.7	73.4	26.6	6.0	37.6	62.4	63.0	61.5	59.8	58.0	17.8
2016 Attn General	15.5	AA	55.5	14.0	87.9	12.1	5.8	46.6	53.4	75.8	74.0	72.1	69.9	3.6
2016 Comm of Labor	15.5	AA	53.6	12.5	78.2	21.8	5.7	45.8	54.2	68.1	66.6	65.0	63.3	6.4
2016 Treasurer	15.5	AA	53.6	12.2	74.5	25.5	5.8	48.8	51.2	66.2	65.1	63.8	62.4	2.3
2014														
none														
2012														
2012 Lt Governor	15.5	AA	55.0	22.4	55.1	44.9	7.0	56.0	44.0	55.3	55.3	55.4	55.4	not polarized
2012 Comm of Labor	15.5	AA	34.0	20.2	51.6	48.4	7.0	29.2	70.8	45.8	44.9	43.9	42.8	81.8

Table 6

House Grouping: Cleveland and Gaston	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 110	15.3	AA	32.2	29.5	95.7	4.3	52.7	27.8	72.2	52.2	49.1	46.3	43.5	46.5
State Senate 43	14.8	AA	33.8	20.8	100.0	0.0	29.8	26.4	73.6	56.7	53.2	49.8	46.5	40.3
2016														
2016 Lt Governor	16.2	AA	31.8	37.1	99.6	0.4	63.9	23.1	76.9	51.2	47.7	44.4	41.3	48.3
2016 Treasurer	16.2	AA	36.0	37.2	99.6	0.4	61.8	27.0	73.0	54.3	51.0	47.8	44.8	43.5
2014														
none														
2012														
2012 President	16.2	AA	37.6	45.7	99.8	0.2	59.7	28.1	71.9	59.2	55.7	52.3	49.0	36.5
2012 Lt Governor	16.2	AA	39.1	43.7	100.0	0.0	57.9	30.0	70.0	60.1	56.7	53.4	50.2	34.6
Democratic primaries														
2018														
none														
2016														
2016 Lt Governor	16.2	AA	44.4	17.7	81.4	18.6	4.5	23.5	76.5	69.7	67.7	65.4	62.8	17.7
2016 Attn General	16.2	AA	57.5	17.7	95.5	4.5	4.4	29.6	70.4	82.4	80.1	77.6	74.7	10.0
2016 Comm of Labor	16.2	AA	53.8	17.3	64.3	35.7	4.3	49.7	50.3	61.4	60.9	60.3	59.7	0.5
2016 Treasurer	16.2	AA	52.6	17.3	59.5	40.5	4.4	47.2	52.8	57.0	56.6	56.1	55.6	7.0
2014														
none														
2012														
2012 Lt Governor	16.2	AA	59.0	13.6	55.1	44.9	7.5	58.8	41.2	56.4	56.6	56.8	57.0	not polarized
2012 Comm of Labor	16.2	AA	32.0	12.8	40.8	59.2	7.0	31.3	68.7	37.4	37.0	36.5	36.0	no clear B-P cand

Table 7

House Grouping: Columbus, Pender and Robeson	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 46	24.7	AA	36.7	27.0	82.3	17.7	36.3	26.3	73.7	50.2	47.5	44.9	42.3	49.7
State Senate 13	26.4	AA	37.5	30.5	88.3	11.7	34.7	20.8	79.2	52.4	49.0	45.7	42.5	46.4
2016														
2016 Lt Governor	24.5	AA	43.0	48.4	92.4	7.6	47.5	28.0	72.0	60.5	57.3	54.1	50.8	33.7
2016 Treasurer	24.5	AA	47.0	45.8	94.1	5.9	47.1	33.9	66.1	63.6	60.6	57.6	54.6	27.3
2014														
none														
2012														
2012 President	24.5	AA	49.9	63.9	93.8	6.2	46.3	36.6	63.4	69.8	66.9	64.0	61.0	18.1
2012 Lt Governor	24.5	AA	57.4	61.8	99.6	0.4	44.7	46.0	54.0	77.1	74.4	71.7	68.9	5.5
Democratic primaries														
2018														
State Senate 13	26.4	AA	69.2	11.3	94.4	5.6	5.4	52.3	47.7	80.8	78.9	76.8	74.6	not polarized
2016														
2016 Lt Governor	24.5	AA	41.5	12.8	59.8	40.2	8.7	31.5	68.5	48.3	47.0	45.5	44.0	56.2
2016 Attn General	24.5	AA	60.1	12.7	86.3	13.7	8.8	46.5	53.5	70.0	68.0	66.0	63.9	6.3
2016 Comm of Labor	24.5	AA	38.5	12.9	51.6	48.4	8.7	32.6	67.4	43.9	43.0	42.0	41.0	88.0
2016 Treasurer	24.5	AA	64.8	12.9	81.5	18.5	8.7	52.7	47.3	69.9	68.5	67.0	65.5	not polarized
2014														
State Senate 13	26.4	AA	27.3	20.3	46.5	53.5	12.8	19.3	80.7	36.0	34.7	33.3	31.8	4 cand, no clear B-P cand
2012														
Lt Governor	24.5	AA	50.5	25.6	54.5	45.5	12.0	50.2	49.8	53.1	52.9	52.7	52.5	not polarized
Comm of Labor	24.5	AA	27.9	21.6	39.7	60.3	11.5	26.8	73.2	35.2	34.6	34.0	33.3	no clear B-P cand

Table 8A

Table 611

House Grouping: Cumberland	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 42	42.2	AA	76.1	40.2	100.0	0.0	37.8	56.8	43.2	79.1	76.9	74.7	72.5	not polarized
State House 43	50.0	AA	74.1	36.4	99.3	0.7	36.8	50.1	49.9	74.6	72.1	69.7	67.2	not polarized
2016														
2016 Lt Governor	37.1	AA	55.8	47.3	99.5	0.5	60.2	32.7	67.3	62.1	58.8	55.7	52.6	30.8
2016 Treasurer	37.1	AA	58.0	47.3	99.9	0.1	58.9	36.6	63.4	64.8	61.7	58.7	55.7	25.1
State Senate 19	22.5	AA	43.6	48.3	83.8	16.2	57.4	29.4	70.6	54.3	51.6	49.0	46.4	42.0
2014														
none														
2012														
2012 President	37.1	AA	59.5	55.7	99.9	0.1	55.8	39.7	60.3	69.8	66.8	63.8	60.7	17.1
2012 Lt Governor	37.1	AA	61.6	55.5	99.6	0.4	54.3	42.4	57.6	71.3	68.4	65.6	62.7	13.0

Table 8B

House Grouping: Cumberland	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
Democratic primaries														
2018														
State House 43	50	AA	79.2	7.3	94.4	5.6	6.8	65.0	35.0	80.2	78.7	77.3	75.8	not polarized
2016														
2016 Lt Governor	37.1	AA	59.1	15.4	72.1	27.9	9.9	48.6	51.4	62.9	61.8	60.6	59.3	not polarized, 1st choice same
2016 Attn General	37.1	AA	66.7	15.3	90.7	9.3	9.8	43.2	56.8	72.2	69.8	67.4	64.9	9.7
2016 Comm of Labor	37.1	AA	46.0	15.4	63.1	36.9	9.8	34.8	65.2	52.1	50.7	49.3	47.8	42.5
2016 Treasurer	37.1	AA	52.3	15.3	74.5	25.5	11.0	39.2	60.8	59.7	58.0	56.2	54.3	24.1
2014														
none														
2012														
2012 Lt Governor	37.1	AA	70.7	11.9	73.5	26.5	12.8	68.5	31.5	70.9	70.7	70.4	70.2	not polarized
2012 Comm of Labor	37.1	AA	42.8	11.5	43.7	56.3	10.0	42.2	57.8	43.0	42.9	42.9	42.8	not polarized, 1st choice same

Table 9

House Grouping: Duplin and Onslow	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 4	22.6	AA	34.9	29.7	99.0	1.0	34.1	15.1	84.9	54.2	50.0	45.9	41.9	45.0
2016														
2016 Lt Governor	18.5	AA	33.5	32.4	99.2	0.8	53.3	18.0	82.0	48.7	45.0	41.4	38.0	51.7
2016 Treasurer	18.5	AA	35.7	32.1	99.6	0.4	51.2	21.1	78.9	51.4	47.7	44.2	40.9	48.2
2014														
none														
2012														
2012 President	18.5	AA	38.3	47.6	98.7	1.3	47.0	22.7	77.3	60.9	57.1	53.3	49.5	35.6
2012 Lt Governor	18.5	AA	41.9	46.1	97.3	2.7	44.9	28.0	72.0	63.1	59.6	56.2	52.7	31.2
Democratic primaries														
2018														
2016														
2016 Lt Governor	18.5	AA	46.7	11.1	91.4	8.6	4.9	32.5	67.5	73.4	70.8	67.9	64.9	15.7
2016 Attn General	18.5	AA	64.6	11.0	92.8	7.2	4.6	43.4	56.6	78.2	76.1	73.8	71.2	6.1
2016 Comm of Labor	18.5	AA	51.0	11.1	71.5	28.5	4.6	46.0	54.0	64.0	62.9	61.7	60.4	7.2
2016 Treasurer	18.5	AA	54.9	11.2	94.9	5.1	4.6	41.9	58.1	79.5	77.2	74.7	72.0	6.9
2014														
none														
2012														
2012 Lt Governor	18.5	AA	52.2	19.3	59.9	40.1	4.8	47.6	52.4	57.5	57.0	56.6	56.0	5.7
2012 Comm of Labor	18.5	AA	24.8	18.9	39.8	60.2	4.2	28.5	71.5	37.7	37.4	37.0	36.5	no clear B-P cand

Table 10

House Grouping: Forsyth and Yadkin	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 71	36.6	AA	72.7	24.7	98.7	1.3	57.0	63.4	36.6	74.1	72.6	71.3	70.1	not polarized
State House 72	47.5	AA	79.1	31.8	99.6	0.4	49.4	69.6	30.4	81.3	79.9	78.6	77.3	not polarized
State Senate 32	39.2	AA	72.9	28.5	99.2	0.8	50.5	65.0	35.0	77.3	75.8	74.3	73.0	not polarized
2016														
2016 Lt Governor	23.6	AA	48.2	40.5	99.3	0.7	70.9	29.1	70.9	54.6	51.5	48.5	45.6	42.6
2016 Treasurer	23.6	AA	47.7	40.1	99.5	0.5	69.6	28.2	71.8	54.3	51.0	48.0	45.1	43.3
2014														
State House 71	45.5	AA	76.6	25.8	99.3	0.7	39.6	62.6	37.4	77.1	75.4	73.7	72.1	not polarized
2012														
2012 President	23.6	AA	50.6	48.9	98.8	1.2	47.0	32.7	67.3	66.4	63.1	59.8	56.4	25.4
2012 Lt Governor	23.6	AA	50.9	46.4	98.5	1.5	44.9	34.3	65.7	66.9	63.7	60.5	57.3	23.9
Democratic primaries														
2018														
none														
2016														
2016 Lt Governor	23.6	AA	55.6	14.6	81.3	18.7	11.4	44.3	55.7	65.1	63.2	61.3	59.4	not polarized, 1st choice same
2016 Attn General	23.6	AA	45.1	14.5	66.2	33.8	11.0	38.0	62.0	54.0	52.6	51.2	49.7	36.0
2016 Comm of Labor	23.6	AA	60.5	14.0	84.0	16.0	11.3	52.0	48.0	69.7	68.1	66.5	64.8	not polarized
2016 Treasurer	23.6	AA	59.1	14.6	71.1	28.9	10.5	53.2	46.8	63.6	62.7	61.8	60.9	not polarized
2014														
none														
2012														
2012 Lt Governor	23.6	AA	58.2	16.1	75.3	24.7	9.3	50.8	49.2	66.3	65.2	63.9	62.6	not polarized
2012 Comm of Labor	23.6	AA	38.9	15.1	51.6	48.4	8.9	33.5	66.5	44.9	44.0	43.1	42.1	85.9

Table 11

House Grouping: Franklin and Nash	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 25	40.7	AA	51.5	35.4	98.1	1.9	64.2	34.2	65.8	56.9	54.1	51.4	48.8	37.3
2016														
2016 Lt Governor	33.0	AA	46.5	51.3	99.9	0.1	70.5	24.0	76.0	56.0	52.3	48.8	45.4	41.7
2016 Treasurer	33.0	AA	48.7	53.5	100.0	0.0	68.3	26.8	73.2	59.0	55.4	51.9	48.5	37.2
State House 7	50.7	AA	67.8	52.9	99.5	0.5	68.3	44.8	55.2	68.7	66.0	63.4	60.9	11.9
State House 25	16.1	AA	31.9	53.8	84.6	15.4	62.8	20.8	79.2	50.2	47.1	44.0	40.9	49.6
2014														
none														
2012														
2012 President	33.0	AA	48.6	53.8	99.1	0.9	64.4	26.6	73.4	59.6	56.0	52.5	49.1	36.3
2012 Lt Governor	33.0	AA	51.2	52.5	99.1	0.9	62.8	30.3	69.7	61.6	58.2	54.9	51.7	32.4
Democratic primaries														
2018														
none														
2016														
2016 Lt Governor	33.0	AA	66.5	17.4	94.9	5.1	8.6	35.7	64.3	75.3	72.6	69.7	66.6	13.6
2016 Attn General	33.0	AA	39.5	17.9	63.1	36.9	8.1	29.5	70.5	52.6	51.1	49.5	47.8	41.5
2016 Comm of Labor	33.0	W	74.8	17.0	72.5	27.5	8.8	75.7	24.3	73.6	73.7	73.9	74.1	not polarized
2016 Treasurer	33.0	AA	65.1	17.7	88.0	12.0	8.7	37.4	62.6	71.3	69.0	66.5	63.9	14.0
2014														
none														
2012														
2012 Lt Governor	33.0	AA	58.2	16.8	68.3	31.7	10.3	50.8	49.2	61.6	60.8	59.9	59.0	not polarized
2012 Comm of Labor	33.0	AA	36.2	16.0	50.8	49.2	9.7	19.1	80.9	38.8	37.3	35.7	34.0	95.9

Table 12A

House Grouping: Guildford	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 58	42.7	AA	76.8	38.0	99.4	0.6	47.8	62.8	37.2	79.0	77.2	75.5	73.8	not polarized
State House 60	40.1	AA	69.0	35.2	98.9	1.1	52.5	57.1	42.9	73.9	71.9	70.0	68.2	not polarized
State Senate 28	43.6	AA	75.3	34.9	99.2	0.8	58.0	64.5	35.5	77.5	75.9	74.4	73.0	not polarized
2016														
2016 Lt Governor	32.1	AA	56.6	44.1	98.7	1.3	78.4	42.8	57.2	62.9	60.4	58.0	55.8	20.8
2016 Treasurer	32.1	AA	57.6	42.1	99.3	0.7	76.9	44.9	55.1	64.1	61.7	59.4	57.3	15.9
State Senate 28	56.5	AA	83.9	59.7	99.4	0.6	59.7	62.3	37.7	80.9	79.0	77.1	75.3	not polarized
2014														
State House 61	15.3	AA	32.8	38.1	98.6	1.4	63.8	24.3	75.7	52.1	48.7	45.5	42.4	47.0
2012														
2012 President	32.1	AA	57.8	49.6	99.9	0.1	76.4	43.7	56.3	65.8	63.2	60.7	58.3	16.3
2012 Lt Governor	32.1	AA	58.0	47.3	100.0	0.0	74.0	44.3	55.7	66.0	63.4	60.9	58.6	15.1

Table 12B

House Grouping: Guilford	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
Democratic primaries														
2018														
State House 58	42.7	AA	80.2	10.0	98.4	1.6	7.3	65.2	34.8	84.4	82.7	81.0	79.3	not polarized
2016														
2016 Lt Governor	32.1	AA	57.9	19.2	71.8	28.2	13.5	49.2	50.8	62.5	61.4	60.2	59.0	not polarized
2016 Attn General	32.1	AA	54.6	18.9	86.5	13.5	13.2	38.3	61.7	66.7	64.3	61.8	59.3	18.3
2016 Comm of Labor	32.1	AA	61.3	18.9	78.5	21.5	12.3	49.6	50.4	67.1	65.7	64.2	62.7	0.9
2016 Treasurer	32.1	AA	54.3	18.4	63.7	36.3	12.5	46.2	53.8	56.6	55.8	54.9	53.9	15.9
State House 58	51.1	AA	71.5	15.3	89.4	10.6	10.4	52.3	47.7	74.4	72.6	70.7	68.7	not polarized
2014														
State House 58	51.1	AA	42.6	12.2	59.4	40.6	7.2	16.8	83.2	43.6	41.5	39.4	37.1	67.6
State House 60	51.4	AA	54.2	9.9	66.5	33.5	4.9	32.7	67.3	55.3	53.8	52.1	50.3	34.2
State Senate 28	56.5	AA	59.4	12.1	71.4	34.1	6.0	34.7	65.3	57.1	55.6	54.0	52.3	28.9
2012														
2012 Lt Governor	32.1	AA	58.6	14.6	66.5	33.5	12.4	54.3	45.7	60.9	60.3	59.7	59.0	not polarized
2012 Comm of Labor	32.1	AA	39.2	13.7	52.6	47.4	10.6	30.9	69.1	43.1	42.1	40.9	39.8	85.0

Table 13

House Grouping: Lenoir and Pitt	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 8	44.9	AA	64.7	26.7	98.3	1.7	56.2	46.8	53.2	63.4	61.2	59.2	57.3	12.2
State House 9	20.5	AA	40.0	20.1	86.1	13.9	57.6	33.1	66.9	46.8	44.9	43.1	41.5	57.3
State House 12	37.4	AA	43.9	27.0	96.6	3.4	45.8	24.9	75.1	51.5	48.2	45.1	42.2	47.7
2016														
2016 Lt Governor	34.2	AA	50.2	39.4	97.9	2.1	65.1	42.8	57.2	63.6	61.0	58.6	56.3	19.9
2016 Treasurer	34.2	AA	52.6	38.8	98.6	1.4	63.2	44.9	55.1	65.3	62.9	60.5	58.2	14.6
2014														
none														
2012														
2012 President	34.2	AA	52.3	52.3	99.0	1.0	60.6	30.7	69.3	62.3	59.0	55.6	52.4	31.3
2012 Lt Governor	34.2	AA	52.9	51.6	98.6	1.4	59.3	32.0	68.0	63.0	59.7	56.5	53.2	29.9
Democratic primaries														
2018														
State House 8	44.9	AA	50.0	7.4	55.3	44.7	4.4	43.0	57.0	50.7	50.1	49.5	48.8	44.0
2016														
2016 Lt Governor	34.2	AA	53.6	17.2	73.7	26.3	7.8	34.2	65.8	61.4	59.6	57.7	55.6	23.2
2016 Attn General	34.2	AA	61.1	16.5	86.9	13.1	7.2	32.5	67.5	70.4	68.0	65.4	62.5	17.1
2016 Comm of Labor	34.2	W	46.5	16.7	55.6	44.4	7.7	38.0	62.0	50.0	49.3	48.4	47.5	49.7
2016 Treasurer	34.2	AA	54.6	16.5	53.6	46.4	7.2	52.7	47.3	53.3	53.3	53.2	53.2	not polarized
2014														
none														
2012														
2012 Lt Governor	34.2	AA	61.1	18.1	69.2	30.8	10.2	52.3	47.7	63.1	62.3	61.5	60.6	not polarized
2012 Comm of Labor	34.2	AA	29.9	18.0	35.2	64.8	9.5	26.1	73.9	32.1	31.6	31.2	30.7	no clear B-P cand

Table 14A

House Grouping: Mecklenburg	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 92	30.2	AA	70.0	26.4	98.3	1.7	65.5	63.2	36.8	73.3	71.9	70.6	69.5	not polarized
State House 99	49.5	AA	82.4	42.9	98.0	2.0	51.4	66.8	33.2	81.0	79.5	78.0	76.5	not polarized
State House 101	50.8	AA	78.7	34.5	98.5	1.5	62.4	61.3	38.7	74.5	72.9	71.3	69.8	not polarized
State House 104	6.2	AA	51.8	20.0	99.6	0.4	64.5	51.9	48.1	63.2	61.6	60.1	58.7	not polarized
State House 106	38.0	AA	80.6	28.1	99.0	1.0	55.8	72.6	27.4	81.4	80.3	79.2	78.2	not polarized
State Senate 40	38.9	AA	75.6	20.8	99.3	0.7	59.1	63.3	36.7	72.7	71.3	70.1	69.0	not polarized
2016														
2016 Lt Governor	30.2	AA	58.4	39.9	98.5	1.5	78.1	46.1	53.9	63.8	61.5	59.4	57.4	not polarized
2016 Treasurer	30.2	AA	58.4	42.2	99.0	1.0	74.6	47.9	52.1	66.4	64.1	61.9	59.8	7.0
State House 92	18.2	AA	54.4	39.8	96.1	3.9	56.6	45.2	54.8	66.2	63.8	61.4	59.2	12.9
State House 101	51.3	AA	76.0	50.7	99.2	0.8	69.1	53.6	46.4	72.9	70.7	68.6	66.5	not polarized
State House 105	9.5	AA	44.7	42.3	97.5	2.5	63.2	41.1	58.9	63.7	61.1	58.5	56.0	21.9
State Senate 38	52.5	AA	79.1	45.4	98.7	1.3	61.9	57.9	42.1	75.2	73.2	71.3	69.5	not polarized
State Senate 40	51.8	AA	82.5	53.8	98.5	1.5	42.6	56.1	43.9	79.8	77.6	75.5	73.3	not polarized
2014														
State House 92	18.2	AA	47.5	26.9	95.2	4.8	33.8	36.7	63.3	62.6	59.8	57.0	54.2	27.0
State House 106	51.1	AA	86.6	30.8	89.2	10.8	30.1	78.6	21.4	84.0	83.4	82.9	82.4	not polarized
State Senate 38	52.5	AA	79.7	31.6	99.2	0.8	35.2	60.4	39.6	78.8	76.8	74.9	73.0	not polarized
State Senate 41	13.2	AA	39.5	25.5	98.5	1.5	49.9	34.4	65.6	56.1	53.3	50.7	48.2	38.6
2012														
2012 President	30.2	AA	60.8	43.4	98.7	1.3	73.9	51.9	48.1	69.2	67.1	65.1	63.1	not polarized
2012 Lt Governor	30.2	AA	59.8	42.9	99.9	0.1	70.7	50.1	49.9	68.9	66.6	64.4	62.4	not polarized

Table 14B

House Grouping: Mecklenburg	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
Democratic primaries														
2018														
State House 99	49.5	AA	57.3	9.8	73.8	26.2	5.9	44.2	55.8	62.7	61.3	59.8	58.2	12.8
State House 101	50.8	AA	50.0	7.8	60.2	39.8	6.5	39.4	61.5	50.5	49.5	48.4	47.3	47.4
State House 106	38.0	AA	88.9	9.4	91.3	8.7	7.5	85.2	14.8	88.6	88.3	88.0	87.7	not polarized
State Senate 38	48.5	O	51.9	12.1	60.3	39.7	5.4	32.6	67.4	51.8	50.5	49.2	47.7	43.0
2016														
2016 Lt Governor	30.2	AA	55.2	19.8	65.2	34.8	11.0	48.6	51.4	59.3	58.5	57.7	56.8	not polarized
2016 Attn General	30.2	AA	55.7	19.6	86.6	13.4	10.9	31.8	68.2	67.0	64.4	61.7	58.8	21.7
2016 Comm of Labor	30.2	AA	57.0	16.9	75.7	24.3	11.2	46.8	53.2	64.2	62.8	61.3	59.8	7.6
2016 Treasurer	30.2	AA	52.7	19.0	59.6	40.4	10.7	47.1	52.9	55.1	54.5	53.9	53.2	14.5
State House 101	51.3	AA	78.6	14.1	92.5	7.5	9.1	50.3	49.7	75.9	73.9	71.7	69.5	not polarized
State House 107	52.5	AA	90.1	26.0	93.4	6.6	10.5	85.7	14.3	91.2	90.9	90.5	90.1	not polarized
State Senate 38	52.5	AA	52.1	18.9	54.3	45.7	13.1	48.6	51.4	52.0	51.7	51.4	51.1	18.4
State Senate 40	51.8	AA	64.7	19.3	66.7	33.3	9.1	63.2	36.8	65.6	65.4	65.3	65.1	not polarized
2014														
State Senate 40	51.8	AA	41.9	10.1	48.5	51.5	6.1	27.5	72.5	40.6	39.6	38.5	37.4	no clear B-P cand
2012														
2012 Lt Governor	30.2	AA	67.6	11.7	61.5	38.5	9.2	70.3	29.7	65.4	65.8	66.3	66.7	not polarized
2012 Comm of Labor	30.2	AA	40.7	11.7	54.3	45.7	7.2	30.5	69.5	45.2	44.1	42.9	41.6	73.6

Table 15A

House Grouping: Wake	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 33	44.2	AA	78.7	49.7	100.0	0.0	49.3	63.2	36.8	81.7	79.8	78.0	76.1	not polarized
State House 37	14.3	AA	49.9	30.4	99.2	0.8	67.3	46.7	53.3	63.0	60.9	58.9	57.0	12.9
State House 38	48.3	AA	81.9	31.5	99.1	0.9	65.4	69.4	30.6	79.1	77.8	76.6	75.5	not polarized
State Senate 14	38.9	AA	71.4	32.0	99.2	0.8	67.9	63.3	36.7	74.8	73.3	71.9	70.6	not polarized
2016														
2016 Lt Governor	20.7	AA	54.7	56.9	98.6	1.4	67.8	46.2	53.8	70.1	67.5	65.0	62.5	not polarized
2016 Treasurer	20.7	AA	56.1	61.1	99.2	0.8	65.3	48.3	51.7	72.9	70.4	67.9	65.4	3.6
State House 38	51.4	AA	84.8	42.1	96.9	3.1	50.9	73.8	26.2	84.3	83.1	82.0	80.9	not polarized
2014														
State House 33	51.4	AA	87.3	37.0	99.3	0.7	50.0	75.4	24.6	85.6	84.4	83.3	82.2	not polarized
State Senate 38	51.4	AA	79.9	43.9	99.1	0.9	43.2	66.5	33.5	82.9	81.3	79.7	78.0	not polarized
2012														
2012 President	20.7	AA	55.1	41.6	99.3	0.7	70.7	47.0	53.0	66.4	64.0	61.7	59.6	9.4
2012 Lt Governor	20.7	AA	55.3	39.8	99.7	0.3	68.7	47.3	52.7	66.5	64.2	61.9	59.8	8.6

Table 15B

House Grouping: Wake	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
Democratic primaries														
2018														
State House 33	44.2	AA	60.2	11.7	61.8	38.2	8.4	58.9	41.1	60.6	60.4	60.3	60.1	not polarized
2016														
2016 Lt Governor	20.7	AA	60.3	22.4	82.2	17.8	17.8	51.4	48.6	68.6	67.0	65.5	63.8	not polarized
2016 Attn General	20.7	AA	35.0	22.0	60.4	39.6	17.8	28.4	71.6	46.1	44.5	42.9	41.2	62.7
2016 Comm of Labor	20.7	W	72.2	18.8	72.1	27.9	21.9	74.7	25.3	73.5	73.6	73.8	73.9	not polarized
2016 Treasurer	20.7	AA	63.2	19.9	89.2	10.8	20.7	52.9	47.1	70.7	68.9	67.1	65.3	not polarized
State House 33	51.4	AA	64.1	18.5	80.6	19.4	17.7	54.3	45.7	67.7	66.4	65.1	63.8	not polarized
2014														
none														
2012														
2012 Lt Governor	20.7	AA	59.7	19.4	68.0	32.0	16.6	53.7	46.3	61.4	60.7	60.0	59.2	not polarized
2012 Comm of Labor	20.7	AA	37.9	19.2	54.1	45.9	13.6	31.3	68.7	44.6	43.5	42.4	41.1	76.4

Table 16A

Senate Grouping: Alamance, Guilford, and Randolph	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 64 (Alamance)	18.5	AA	42.2	24.5	96.7	3.3	55.7	38.2	61.8	56.1	53.7	51.5	49.4	36.5
State House 58 (Guilford)	42.7	AA	76.8	38.0	99.4	0.6	47.8	62.8	37.2	79.0	77.2	75.5	73.8	not polarized
State House 60 (Guilford)	40.1	AA	69.0	35.2	98.9	1.1	52.5	57.1	42.9	73.9	71.9	70.0	68.2	not polarized
State Senate 28 (Guilford)	43.6	AA	75.3	34.9	99.2	0.8	58.0	64.5	35.5	77.5	75.9	74.4	73.0	not polarized
insert														
2016														
2016 Lt Governor	24.8	AA	47.8	43.6	96.6	3.4	72.2	38.1	61.9	60.1	57.4	54.9	52.5	29.7
2016 Treasurer	24.8	AA	49.2	43.8	99.5	0.5	70.1	42.3	57.7	64.3	61.6	59.1	56.7	19.9
State Senate 28 (Guilford)	56.5	AA	83.9	59.7	99.4	0.6	59.7	62.3	37.7	80.9	79.0	77.1	75.3	not polarized
2014														
State House 61 (Guilford)	15.3	AA	32.8	38.1	98.6	1.4	63.8	24.3	75.7	52.1	48.7	45.5	42.4	47.0
2012														
2012 President	24.8	AA	49.8	45.0	99.2	0.8	67.8	40.0	60.0	63.6	60.8	58.2	55.6	23.4
2012 Lt Governor	24.8	AA	50.2	43.5	98.4	1.6	66.9	43.5	56.5	65.1	62.6	60.1	57.7	17.1

Table 16B

Senate Grouping: Alamance, Guilford, and Randolph	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
Democratic primaries														
2018														
State House 64 (Alamance)	18.5	AA	46.8	5.4	87.8	12.2	3.5	35.9	64.1	67.4	64.9	62.2	59.5	19.5
State House 58 (Guilford)	42.7	AA	80.2	10.0	98.4	1.6	7.3	65.2	34.8	84.4	82.7	81.0	79.3	not polarized
2016														
2016 Lt Governor	24.8	AA	56.0	21.2	74.6	25.4	11.2	47.0	53.0	65.1	63.8	62.4	60.9	not polarized
2016 Attn General	24.8	AA	53.1	20.9	87.9	12.1	10.9	38.5	61.5	71.0	68.7	66.2	63.6	13.7
2016 Comm of Labor	24.8	W	58.8	20.6	79.5	20.5	10.3	49.5	50.5	69.5	68.1	66.6	65.1	0.8
2016 Treasurer	24.8	AA	54.2	20.5	61.3	38.7	10.5	54.3	45.7	58.9	58.6	58.3	57.9	not polarized
State House 58 (Guilford)	51.1	AA	71.5	15.3	89.4	10.6	10.4	52.3	47.7	74.4	72.6	70.7	68.7	not polarized
2014														
State House 58 (Guilford)	51.1	AA	42.6	12.2	59.4	40.6	7.2	16.8	83.2	43.6	41.5	39.4	37.1	67.6
State House 60 (Guilford)	51.4	AA	54.2	9.9	66.5	33.5	4.9	32.7	67.3	55.3	53.8	52.1	50.3	34.2
State Senate 28 (Guilford)	56.5	AA	59.4	12.1	71.4	34.1	6.0	34.7	65.3	57.1	55.6	54.0	52.3	28.9
2012														
2012 Lt Governor	24.8	AA	56.7	16.9	66.7	33.3	9.8	52.1	47.9	61.3	60.6	59.9	59.1	not polarized
2012 Comm of Labor	24.8	AA	36.8	15.7	54.4	45.6	8.4	27.8	72.2	45.1	43.9	42.6	41.1	73.0

Table 17

Table 17

Senate Grouping: Davie and Forsyth	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 71 (Forsyth)	36.6	AA	72.7	24.7	98.7	1.3	57.0	63.4	36.6	74.1	72.6	71.3	70.1	not polarized
State House 72 (Forsyth)	47.5	AA	79.1	31.8	99.6	0.4	49.4	69.6	30.4	81.3	79.9	78.6	77.3	not polarized
State Senate 32 (Forsyth)	39.2	AA	72.9	28.5	99.2	0.8	50.5	65.0	35.0	77.3	75.8	74.3	73.0	not polarized
2016														
2016 Lt Governor	23.8	AA	48.2	32.6	99.4	0.6	72.9	34.8	65.2	54.8	52.1	49.6	47.3	40.8
2016 Treasurer	23.8	AA	41.2	29.9	100.0	0.0	71.2	34.3	65.7	53.7	51.1	48.7	46.4	42.8
2014														
State House 71	45.5	AA	76.6	25.8	99.3	0.7	39.6	62.6	37.4	77.1	75.4	73.7	72.1	not polarized
2012														
2012 President	23.8	AA	50.5	47.8	99.3	0.7	69.8	40.6	59.4	64.5	61.7	59.0	56.4	21.8
2012 Lt Governor	23.8	AA	50.7	46.4	99.1	0.9	69.5	42.3	57.7	65.0	62.4	59.8	57.3	19.0
Democratic primaries														
2018														
none														
2016														
2016 Lt Governor	23.8	AA	55.6	20.0	79.9	20.1	11.4	45.2	54.8	67.3	65.7	63.9	62.1	not polarized, 1st choice same
2016 Attn General	23.8	AA	45.0	20.9	68.9	31.1	11.1	36.3	63.7	57.6	56.1	54.4	52.7	27.8
2016 Comm of Labor	23.8	AA	60.3	19.1	84.7	15.3	10.6	51.2	48.8	72.7	71.2	69.5	67.7	not polarized
2016 Treasurer	23.8	AA	59.1	20.5	70.5	29.5	10.6	53.6	46.4	64.7	64.0	63.1	62.2	not polarized
2014														
none														
2012														
2012 Lt Governor	23.8	AA	58.5	16.1	76.5	23.5	10.4	51.8	48.2	66.8	65.6	64.3	63.0	not polarized
2012 Comm of Labor	23.8	AA	39.3	15.1	47.9	52.1	8.9	35.8	64.2	43.4	42.8	42.2	41.6	no clear B-P cand

Table 18A

Senate Grouping: Duplin, Harnett, Johnson, Lee, Nash, and Sampson	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 4 (Duplin)	22.6	AA	34.5	29.7	99.0	1.0	34.1	15.1	84.9	54.2	50.0	45.9	41.9	45.0
State House 25 (Nash)	40.7	AA	51.5	35.4	98.1	1.9	64.2	34.2	65.8	56.9	54.1	51.4	48.8	37.3
State Senate 10	24.1	AA	37.5	30.7	99.8	0.2	33.2	16.6	83.4	56.6	52.4	48.3	44.3	42.0
2016														
2016 Lt Governor	23.3	AA	38.7	55.9	99.8	0.2	60.1	21.1	78.9	59.0	55.1	51.2	47.4	38.4
2016 Treasurer	23.3	AA	41.5	54.8	99.8	0.2	58.4	29.7	70.3	63.6	60.1	56.7	53.2	30.3
State House 7 (Nash)	50.7	AA	67.8	52.9	99.5	0.5	68.3	44.8	55.2	68.7	66.0	63.4	60.9	11.9
State House 25 (Nash)	16.1	AA	31.9	53.8	84.6	15.4	62.8	20.8	79.2	50.2	47.1	44.0	40.9	49.6
2014														
none														
2012														
2012 President	23.3	AA	41.8	58.3	99.2	0.8	64.7	23.9	76.1	59.6	55.9	52.2	48.5	37.1
2012 Lt Governor	23.3	AA	44.8	57.1	99.1	0.9	63.6	28.4	71.6	61.8	58.3	54.9	51.4	32.9

Table 18B

Senate Grouping: Duplin, Harnett, Johnson, Lee, Nash, and Sampson	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
Democratic primaries														
2018														
none														
2016														
2016 Lt Governor	23.3	AA	57.8	19.0	94.1	5.9	6.5	40.2	59.8	80.4	78.2	75.8	73.2	7.1
2016 Attn General	23.3	AA	49.3	18.9	64.5	35.5	7.0	42.3	57.7	58.5	57.6	56.6	55.5	16.4
2016 Comm of Labor	23.3	W	67.7	18.6	64.9	35.1	6.6	69.3	30.7	66.1	66.2	66.4	66.6	not polarized
2016 Treasurer	23.3	AA	60.1	18.8	82.7	17.3	6.6	48.4	51.6	73.8	72.4	70.9	69.2	1.7
2014														
none														
2012														
2012 Lt Governor	23.3	AA	51.3	24.9	56.4	43.6	7.9	56.2	43.8	56.4	56.3	56.3	56.3	not polarized
2012 Comm of Labor	23.3	AA	16.9	23.9	38.5	61.5	6.9	18.4	81.6	34.0	33.3	32.4	31.5	no clear B-P cand

Table 19A

Senate Grouping: Franklin and Wake	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 33 (Wake)	44.2	AA	78.7	49.7	100.0	0.0	49.3	63.2	36.8	81.7	79.8	78.0	76.1	not polarized
State House 37 (Wake)	14.3	AA	49.9	30.4	99.2	0.8	67.3	46.7	53.3	63.0	60.9	58.9	57.0	12.9
State House 38 (Wake)	48.3	AA	81.9	31.5	99.1	0.9	65.4	69.4	30.6	79.1	77.8	76.6	75.5	not polarized
State Senate 14 (Wake)	38.9	AA	71.4	32.0	99.2	0.8	67.9	63.3	36.7	74.8	73.3	71.9	70.6	not polarized
2016														
2016 Lt Governor	21.1	AA	54.0	58.3	99.6	0.4	85.8	44.1	55.9	66.6	63.9	61.4	59.0	14.9
2016 Treasurer	21.1	AA	55.4	57.3	99.5	0.5	84.3	46.4	53.6	67.9	65.4	63.0	60.6	9.7
State House 7 (Franklin)	50.7	AA	67.8	52.9	99.5	0.5	68.3	44.8	55.2	68.7	66.0	63.4	60.9	11.9
State House 38 (Wake)	51.4	AA	84.8	42.1	96.9	3.1	50.9	73.8	26.2	84.3	83.1	82.0	80.9	not polarized
2014														
State House 33 (Wake)	51.4	AA	87.3	37.0	99.3	0.7	50.0	75.4	24.6	85.6	84.4	83.3	82.2	not polarized
State Senate 38 (Wake)	51.4	AA	79.9	43.9	99.1	0.9	43.2	66.5	33.5	82.9	81.3	79.7	78.0	not polarized
2012														
2012 President	21.1	AA	54.7	54.7	99.5	0.5	68.3	42.1	57.9	67.6	64.8	62.1	59.4	16.6
2012 Lt Governor	21.1	AA	54.9	53.6	99.3	0.7	67.1	44.0	56.0	68.6	65.9	63.2	60.6	13.2

Table 19B

Senate Grouping: Franklin and Wake	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
Democratic primaries														
2018														
State House 33	44.2	AA	60.2	11.7	61.8	38.2	8.4	58.9	41.1	60.6	60.4	60.3	60.1	not polarized
2016														
2016 Lt Governor	21.1	AA	60.7	17.6	84.7	15.3	13.3	51.3	48.7	70.3	68.7	67.0	65.2	not polarized
2016 Attn General	21.1	AA	35.4	17.0	63.2	15.4	13.0	32.4	67.6	56.7	54.3	51.9	49.5	36.0
2016 Comm of Labor	21.1	W	72.2	17.0	68.6	31.4	11.6	74.7	25.3	71.1	71.4	71.7	72.0	not polarized
2016 Treasurer	21.1	AA	63.4	17.3	90.0	10.0	12.4	53.5	46.5	74.8	73.0	71.1	69.2	not polarized
State House 33	51.4	AA	64.1	18.5	80.6	19.4	17.7	54.3	45.7	67.7	66.4	65.1	63.8	not polarized
2014														
none														
2012														
2012 Lt Governor	21.1	AA	59.8	19.4	77.0	23.0	16.6	54.9	45.1	66.8	65.7	64.6	63.4	not polarized
2012 Comm of Labor	21.1	AA	37.7	19.2	56.1	43.9	13.6	31.3	68.7	45.8	44.6	43.3	42.0	68.5

Table 20

Forsyth County	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 71	36.6	AA	72.7	24.7	98.7	1.3	57.0	63.4	36.6	74.1	72.6	71.3	70.1	not polarized
State House 72	47.5	AA	79.1	31.8	99.6	0.4	49.4	69.6	30.4	81.3	79.9	78.6	77.3	not polarized
State Senate 32	39.2	AA	72.9	28.5	99.2	0.8	50.5	65.0	35.0	77.3	75.8	74.3	73.0	not polarized
2016														
2016 Lt Governor	25.9	AA	51.2	42.6	98.8	1.2	73.5	42.3	57.7	63.0	60.5	58.0	55.7	21.4
2016 Treasurer	25.9	AA	50.9	39.2	99.0	1.0	72.0	42.8	57.2	62.6	60.1	57.8	55.5	21.3
2014														
State House 71	45.5	AA	76.6	25.8	99.3	0.7	39.6	62.6	37.4	77.1	75.4	73.7	72.1	not polarized
2012														
2012 President	25.9	AA	53.2	44.5	99.8	0.2	70.2	43.6	56.4	65.4	62.8	60.3	57.9	16.9
2012 Lt Governor	25.9	AA	53.4	44.2	100.0	0.0	68.3	44.2	55.8	66.1	63.5	61.0	58.6	15.2
Democratic primaries														
2018														
none														
2016														
2016 Lt Governor	25.9	AA	56.1	19.5	79.5	20.5	12.5	45.6	54.4	66.3	64.6	62.9	61.1	8.7
2016 Attn General	25.9	AA	45.2	18.9	69.5	30.5	12.1	35.0	65.0	56.0	54.4	52.6	50.8	33.0
2016 Comm of Labor	25.9	AA	60.8	17.8	84.2	15.8	11.7	52.0	48.0	71.4	69.9	68.2	66.5	not polarized
2016 Treasurer	25.9	AA	59.6	18.9	69.4	30.6	11.7	54.4	45.6	63.7	62.9	62.2	61.4	not polarized
2014														
none														
2012														
2012 Lt Governor	25.9	AA	58.8	15.1	66.5	33.5	11.2	52.9	47.1	60.7	60.0	59.3	58.6	not polarized
2012 Comm of Labor	25.9	AA	39.7	14.2	49.4	50.6	9.5	35.5	64.5	43.8	43.1	42.4	41.7	106.6

Table 21

Pitt County	percent black VAP of jurisdiction	race of B-P candidate	actual vote for B-P candidate	turnout rate for office and percent vote for black-preferred candidates						percent of vote B-P cand would have received if district was 50% black VAP	percent of vote B-P cand would have received if district was 45% black VAP	percent of vote B-P cand would have received if district was 40% black VAP	percent of vote B-P cand would have received if district was 35% black VAP	percent black VAP must exceed for B-P candidate to win
				black votes			white votes							
				votes cast for office	B-P	all others	votes cast for office	B-P	all others					
General elections														
2018														
State House 8	44.9	AA	64.7	26.7	98.3	1.7	56.2	46.8	53.2	63.4	61.2	59.2	57.3	12.2
State House 9	20.5	AA	40.0	20.1	86.1	13.9	57.6	33.1	66.9	46.8	44.9	43.1	41.5	57.3
2016														
2016 Lt Governor	32.4	AA	51.0	47.4	98.6	1.4	68.1	33.2	66.8	60.0	56.9	53.9	51.0	33.2
2016 Treasurer	32.4	AA	53.0	45.3	99.4	0.6	66.7	35.6	64.4	61.4	58.4	55.5	52.7	30.0
2014														
none														
2012														
2012 President	32.4	AA	53.2	54.8	99.2	0.8	64.1	34.6	65.4	64.4	61.2	58.1	55.0	26.8
2012 Lt Governor	32.4	AA	55.1	53.8	99.0	1.0	62.6	37.3	62.7	65.8	62.8	59.8	56.8	23.2
Democratic primaries														
2018														
State House 8	44.9	AA	50.0	7.4	55.3	44.7	4.4	43.0	57.0	50.7	50.1	49.5	48.8	44.0
2016														
2016 Lt Governor	32.4	AA	52.0	12.2	78.1	21.9	7.2	34.2	65.8	61.8	59.7	57.5	55.1	24.9
2016 Attn General	32.4	AA	61.4	11.7	71.9	28.1	6.8	22.5	77.5	53.7	51.4	48.9	46.3	42.2
2016 Comm of Labor	32.4	AA	50.5	11.5	62.3	37.7	6.7	41.9	58.1	54.8	53.8	52.8	51.7	27.7
2016 Treasurer	32.4	AA	51.3	11.4	55.1	44.9	6.9	43.1	56.9	50.6	50.0	49.4	48.7	45.0
2014														
none														
2012														
2012 Lt Governor	32.4	AA	60.5	13.7	57.2	42.8	7.4	60.9	39.1	58.5	58.7	58.9	59.1	not polarized
2012 Comm of Labor	32.4	AA	32.9	13.1	44.3	55.7	6.7	20.3	79.7	36.2	35.1	33.9	32.6	no clear B-P cand

Table 22A

Robeson County	percent NA VAP of jurisdiction	race of N-P candidate	actual vote for N-P candidate	turnout rate for office and percent vote for Native-preferred candidates						percent of vote B-P cand would have received if district was 50% NA VAP	percent of vote B-P cand would have received if district was 45% NA VAP	percent of vote B-P cand would have received if district was 40% NA VAP	percent of vote B-P cand would have received if district was 35% NA VAP	percent NA VAP must exceed for N-P candidate to win
				Native American votes			non-Native American votes							
				votes cast for office	N-P	all others	votes cast for office	N-P	all others					
General elections														
2018														
State House 46	14.5	AA	36.7	12.4	51.9	48.1	35.9	39.5	60.5	42.7	42.2	41.8	41.4	94.1
State House 47	46.2	NA	58.9	16.7	79.3	20.7	30.8	38.5	61.5	52.8	51.0	49.3	47.7	42.0
State Senate 13	26.5	W	61.5	17.5	53.6	46.4	35.2	57.8	42.2	56.4	56.6	56.8	56.9	not polarized
2016														
2016 Lt Governor	38.2	AA	51.6	24.0	51.7	48.3	46.6	50.7	49.3	51.0	51.0	51.0	50.9	not polarized
2016 Treasurer	38.2	AA	57.8	22.9	59.1	40.9	45.6	51.5	48.5	54.0	53.7	53.4	53.1	not polarized
2014														
none														
2012														
2012 President	38.2	AA	58.3	28.3	60.4	39.6	53.5	60.8	39.2	60.7	60.7	60.7	60.7	not polarized
2012 Lt Governor	38.2	AA	67.5	27.3	73.8	26.2	51.8	66.1	33.9	68.8	68.4	68.1	67.8	not polarized

Table 22B

Robeson County	percent NA VAP of jurisdiction	race of N-P candidate	actual vote for N-P candidate	turnout rate for office and percent vote for Native-preferred candidates						percent of vote B-P cand would have received if district was 50% NA VAP	percent of vote B-P cand would have received if district was 45% NA VAP	percent of vote B-P cand would have received if district was 40% NA VAP	percent of vote B-P cand would have received if district was 35% NA VAP	percent NA VAP must exceed for N-P candidate to win
				Native American votes			non-Native American votes							
				votes cast for office	N-P	all others	votes cast for office	N-P	all others					
Democratic primaries														
2018														
State Senate 13	26.5	NA	33.1	11.2	52.3	47.7	9.0	22.7	77.3	39.1	37.6	36.1	34.6	90.5
2016														
2016 Lt Governor	38.2	W	22.3	8.5	31.6	68.4	9.9	17.0	83.0	23.7	23.0	22.3	21.6	no clear N-P cand
2016 Attn General	38.2	AA	62.5	8.4	65.2	34.8	10.5	59.3	40.7	61.9	61.6	61.4	61.1	not polarized
2016 Comm of Labor	38.2	W	65.2	8.4	61.3	38.7	9.7	69.1	30.9	65.5	65.9	66.2	66.6	not polarized
2016 Treasurer	38.2	AA	67.1	8.9	72.5	27.5	10.1	59.1	40.9	65.4	64.7	64.1	63.4	not polarized
State House 47	51.0	NA	58.4	11.8	52.2	47.8	9.0	62.7	37.3	56.7	57.3	57.8	58.4	not polarized
2014														
State Senate 13	26.5	W	47.3	12.6	42.7	57.3	17.1	46.1	53.9	44.7	44.8	45.0	45.1	not polarized
2012														
2012 Lt Governor	38.2	AA	52.3	16.2	58.1	41.9	17.3	48.7	51.3	53.2	52.8	52.3	51.9	14.6
2012 Comm of Labor	38.2	W	54.4	16.4	88.0	12.0	16.1	39.4	60.6	63.9	61.5	59.1	56.6	21.5

Certification

I certify that the statements and opinions provided in this report are true and accurate to the best of my knowledge, information, and belief.

Lisa Handley

Lisa Handley, Ph.D.

9/17/2019

Date

Lisa R. Handley
CURRICULUM VITAE

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Professional Experience

Dr. Handley has over thirty years of experience in the areas of redistricting and voting rights, both as a practitioner and an academician, and is recognized nationally (as well as internationally) as an expert on these subjects. She has advised numerous jurisdictions and other clients on redistricting and has served as an expert in dozens of redistricting and voting rights court cases. Her clients have included the U.S. Department of Justice and scores of state and local jurisdictions, as well as redistricting commissions and civil rights organizations. Internationally, Dr. Handley has provided electoral assistance in more than a dozen countries, serving as a consultant on issues of democratic governance – including voting rights, electoral system design and electoral boundary delimitation (redistricting) – for the United Nations, the United Nations Development Fund (UNDP), IFES, and International IDEA. In addition, Dr. Handley served as Chairman of the Electoral Boundaries Commission in the Cayman Islands.

Dr. Handley has been actively involved in research, writing and teaching on the subjects of voting rights and redistricting. She has written a book, Minority Representation and the Quest for Voting Equality (Cambridge University Press, 1992) and numerous articles, as well as edited a volume (Redistricting in Comparative Perspective, Oxford University Press, 2008) on these subjects. She has taught political science and methodology courses at several universities, most recently George Washington University. Dr. Handley is a Visiting Research Academic at Oxford Brookes University in the United Kingdom.

Dr. Handley is the President of Frontier International Consulting, a consulting firm that specializes in providing electoral assistance in transitional and post-conflict democracies. She also works as an independent election consultant for such international organizations as the United Nations.

Education

Ph.D. The George Washington University, Political Science, 1991

Present Employment

President, Frontier International Electoral Consulting LLC (since co-founding company in September of 1998).

Senior International Consultant, provides electoral assistance to such international clients as the UN, UNDP and IFES on electoral district delimitation, electoral system design and minority voting rights.

U.S. Clients since 2000

American Civil Liberties Union (expert testimony in Ohio partisan gerrymander challenge and challenge to Commerce Department inclusion of citizenship question on 2020 census form)

Lawyers Committee for Civil Rights Under Law (expert testimony in challenges to statewide judicial elections in Texas and Alabama)

US Department of Justice (expert witness testimony in several Section 2 and Section 5 cases)

Alaska: Alaska Redistricting Board (redistricting consultation, expert witness testimony)

Arizona: Arizona Independent Redistricting Board (redistricting consultation, expert witness)

Arkansas: expert witness for Plaintiffs in Jeffers v. Beebe

Colorado: Colorado Redistricting Board (redistricting consultation)

Connecticut: State Senate and State House of Representatives (redistricting consultation)

Florida: State Senate (redistricting consultation)

Kansas: State Senate and House Legislative Services (redistricting consultation)

Louisiana: Louisiana Legislative Black Caucus (expert witness testimony)

Massachusetts: State Senate (redistricting consultation)

Maryland: Attorney General (redistricting consultation, expert witness testimony)

Miami-Dade County, Florida: County Attorney (redistricting consultation)

Nassau County, New York: Redistricting Commission (redistricting consulting)

New Mexico: State House (redistricting consultation, expert witness testimony)

New York: State Assembly (redistricting consultation)

New York City: Redistricting Commission and Charter Commission (redistricting consultation and Section 5 submission assistance)

New York State Court: Expert to the Special Master (drew congressional lines for state court)

Ohio: State Democratic Party (redistricting litigation support, expert witness testimony)

Pennsylvania: Senate Democratic Caucus (redistricting consultation)

Rhode Island: State Senate and State House (litigation support, expert witness testimony)

Vermont: Secretary of State (redistricting consultation)

International Clients since 2000

United Nations

- Afghanistan – electoral system design and district delimitation expert
- Bangladesh (UNDP) – redistricting expert
- Sierra Leone (UNDP) – redistricting expert
- Liberia (UNMIL, UN peacekeeping mission) – redistricting expert
- Democratic Republic of the Congo (MONUC, UN peacekeeping mission) – election feasibility mission, electoral system design and redistricting expert
- Kenya (UN) – electoral system design and redistricting expert
- Haiti (UN) – election feasibility mission, electoral system design and redistricting expert
- Lead Writer on the topic of boundary delimitation (redistricting) for ACE (Administration and Cost of Elections Project)

International Foundation for Election Systems (IFES)

- Afghanistan – district delimitation expert
- Sudan – redistricting expert
- Kosovo – electoral system design and redistricting expert
- Nigeria – redistricting expert
- Nepal – redistricting expert
- Georgia – electoral system design and district delimitation expert
- Yemen – redistricting expert
- Lebanon – electoral system design and redistricting expert
- Myanmar – electoral system design and redistricting expert
- Ukraine – electoral system design and redistricting expert
- Pakistan – consultant for developing redistricting software
- Principal consultant for the Delimitation Equity Project – conducted research, wrote reference manual and developed training curriculum
- Writer on electoral boundary delimitation (redistricting), Elections Standards Project
- Training – developed training curriculum and conducted training workshops on electoral boundary delimitation (redistricting) in Azerbaijan and Jamaica

International Institute for Democracy and Electoral Assistance (International IDEA):

- Consultant on electoral dispute resolution systems
- Technology consultant on use of GIS for electoral district delimitation
- Training – developed training material and conducted training workshop on electoral boundary delimitation (redistricting) for African election officials (Mauritius)
- Curriculum development – boundary delimitation curriculum for the BRIDGE Project
- Project coordinator for the ACE project

Other international clients have included The Cayman Islands; the Australian Election Commission; the Boundary Commission of British Columbia, Canada; and the Global Justice Project for Iraq.

Previous Employment

Project Coordinator and Lead Writer on Boundary Delimitation, Administration and Cost of Elections (ACE) Project. As Project Coordinator (1998 – 2000) of the ACE Project, Dr. Handley served as a liaison between the three partner international organizations – the United Nations, the International Foundation for Election Systems and International IDEA – and was responsible for the overall project management of ACE, a web-based global encyclopedia of election administration. She also served as Lead Writer on Boundary Delimitation for ACE.

Research Director and Statistical Analyst, Election Data Services, Inc. (1984 to 1998). Election Data Services (E.D.S.) is a Washington D.C. political consulting firm specialising in election administration. Dr. Handley's work at E.D.S. focused on providing redistricting and voting rights consulting and litigation support to scores of state and local jurisdictions.

Adjunct Professor (1986 to 1998). Dr. Handley has taught political science and methodology courses (both at the graduate and undergraduate level) at George Washington University, the University of Virginia, and the University of California at Irvine. She has served as a guest lecture at Harvard, Princeton, Georgetown, American University, George Mason University and Oxford Brookes University in the UK.

Grants

National Science Foundation Grant (2000-2001): Co-investigator (with Bernard Grofman) on a comparative redistricting project, which included hosting an international conference on "Redistricting in a Comparative Perspective" and producing an edited volume based on the papers presented at the conference.

Publications

Books:

Does Torture Prevention Work? Liverpool University Press, 2016 (served as editor and author, with Richard Carver)

Comparative Redistricting in Perspective, Oxford University Press, 2008 (first editor, with Bernard Grofman).

Delimitation Equity Project: Resource Guide, Center for Transitional and Post-Conflict Governance at IFES and USAID publication, 2006 (lead author).

Minority Representation and the Quest for Voting Equality, Cambridge University Press, 1992 (with Bernard Grofman and Richard Niemi).

Academic Articles:

"Minority Success in Non-Majority Minority Districts: Finding the 'Sweet Spot'," Journal of Race, Ethnicity and Politics, forthcoming (with David Lublin, Thomas Brunell and Bernard Grofman).

"Has the Voting Rights Act Outlived its Usefulness: In a Word, 'No,'" Legislative Studies Quarterly, volume 34 (4), November 2009 (with David Lublin, Thomas Brunell and Bernard Grofman).

"Delimitation Consulting in the US and Elsewhere," Zeitschrift für Politikberatung, volume 1 (3/4), 2008 (with Peter Schrott).

"Drawing Effective Minority Districts: A Conceptual Framework and Some Empirical Evidence," North Carolina Law Review, volume 79 (5), June 2001 (with Bernard Grofman and David Lublin).

"A Guide to 2000 Redistricting Tools and Technology" in The Real Y2K Problem: Census 2000 Data and Redistricting Technology, edited by Nathaniel Persily, New York: Brennan Center, 2000.

"1990s Issues in Voting Rights," Mississippi Law Journal, 65 (2), Winter 1995 (with Bernard Grofman).

"Minority Turnout and the Creation of Majority-Minority Districts," American Politics Quarterly, 23 (2), April 1995 (with Kimball Brace, Richard Niemi and Harold Stanley).

"Identifying and Remedying Racial Gerrymandering," Journal of Law and Politics, 8 (2), Winter 1992 (with Bernard Grofman).

"The Impact of the Voting Rights Act on Minority Representation in Southern State Legislatures," Legislative Studies Quarterly, 16 (1), February 1991 (with Bernard Grofman).

"Minority Population Proportion and Black and Hispanic Congressional Success in the 1970s and 1980s," American Politics Quarterly, 17 (4), October 1989 (with Bernard Grofman).

"Black Representation: Making Sense of Electoral Geography at Different Levels of Government," Legislative Studies Quarterly, 14 (2), May 1989 (with Bernard Grofman).

"Minority Voting Equality: The 65 Percent Rule in Theory and Practice," Law and Policy, 10 (1), January 1988 (with Kimball Brace, Bernard Grofman and Richard Niemi).

"Does Redistricting Aimed to Help Blacks Necessarily Help Republicans?" Journal of Politics, 49 (1), February 1987 (with Kimball Brace and Bernard Grofman).

Chapters in Edited Volumes:

“Redistricting” in Oxford Handbook of Electoral Systems, Erik Herron Robert Pekkanen and Matthew Shugart (eds), Oxford: Oxford University Press, 2018.

“Role of the Courts in the Electoral Boundary Delimitation Process,” in International Election Remedies, John Hardin Young (ed.), Chicago: American Bar Association Press, 2017.

“One Person, One Vote, Different Values: Comparing Delimitation Practices in India, Canada, the United Kingdom, and the United States,” in Fixing Electoral Boundaries in India, edited by Mohd. Sanjeer Alam and K.C. Sivaramakrishnan, New Delhi: Oxford University Press, 2015.

“Delimiting Electoral Boundaries in Post-Conflict Settings,” in Comparative Redistricting in Perspective, edited by Lisa Handley and Bernard Grofman, Oxford: Oxford University Press, 2008.

“A Comparative Survey of Structures and Criteria for Boundary Delimitation,” in Comparative Redistricting in Perspective, edited by Lisa Handley and Bernard Grofman, Oxford: Oxford University Press, 2008.

“Drawing Effective Minority Districts: A Conceptual Model,” in Voting Rights and Minority Representation, edited by David Bositis, published by the Joint Center for Political and Economic Studies, Washington DC, and University Press of America, New York, 2006.

“Electing Minority-Preferred Candidates to Legislative Office: The Relationship Between Minority Percentages in Districts and the Election of Minority-Preferred Candidates,” in Race and Redistricting in the 1990s, edited by Bernard Grofman; New York: Agathon Press, 1998 (with Bernard Grofman and Wayne Arden).

“Estimating the Impact of Voting-Rights-Related Districting on Democratic Strength in the U.S. House of Representatives,” in Race and Redistricting in the 1990s, edited by Bernard Grofman; New York: Agathon Press, 1998 (with Bernard Grofman).

“Voting Rights in the 1990s: An Overview,” in Race and Redistricting in the 1990s, edited by Bernard Grofman; New York: Agathon Press, 1998 (with Bernard Grofman and Wayne Arden).

“Racial Context, the 1968 Wallace Vote and Southern Presidential Dealignment: Evidence from North Carolina and Elsewhere,” in Spatial and Contextual Models in Political Research, edited by Munroe Eagles; Taylor and Francis Publishing Co., 1995 (with Bernard Grofman).

“The Impact of the Voting Rights Act on Minority Representation: Black Officeholding in Southern State Legislatures and Congressional Delegations,” in The Quiet Revolution: The Impact of the Voting Rights Act in the South, 1965-1990, eds. Chandler Davidson and Bernard Grofman, Princeton University Press, 1994 (with Bernard Grofman).

"Preconditions for Black and Hispanic Congressional Success," in United States Electoral Systems: Their Impact on Women and Minorities, eds. Wilma Rule and Joseph Zimmerman, Greenwood Press, 1992 (with Bernard Grofman).

Electronic Publication:

"Boundary Delimitation" Topic Area for the Administration and Cost of Elections (ACE) Project, 1998. Published by the ACE Project on the ACE website (www.aceproject.org).

Additional Writings of Note:

Amicus brief presented to the US Supreme Court in Gill v. Whitford, Brief of Political Science Professors as Amici Curiae, 2017 (one of more than a political scientists to sign brief)

Amicus brief presented to the US Supreme Court in Shelby County v. Holder, Brief of Historians and Social Scientists as Amici Curiae, 2013 (one of several dozen historians and social scientists to sign brief)

Amicus brief presented to the US Supreme Court in Bartlett v. Strickland, 2008 (with Nathaniel Persily, Bernard Grofman, Bruce Cain, and Theodore Arrington).

Court Cases since 2015

Ohio Philip Randolph Institute v. Larry Householder (2019) – partisan gerrymander challenge to Ohio congressional districts

State of New York v. U.S. Department of Commerce/ New York Immigration Coalition v. U.S. Department of Commerce (2018-2019) – challenge to inclusion of citizenship question on 2020 census form

U.S. v. City of Eastpointe (ongoing) – minority vote dilution challenge to City of Eastpointe, Michigan, at-large city council election system

Alabama NAACP v. State of Alabama (ongoing) – minority vote dilution challenge to Alabama statewide judicial election system

Lopez v. Abbott (2017-2018) – minority vote dilution challenge to Texas statewide judicial election system

Personhaballah v. Alcorn (2016-17) – racial gerrymander challenge to Virginia congressional districts